City of Susanville

Urban Water Management Plan 2010

Public Works
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Rev: 20110920

Table of Contents

REPORT

TABLES

APPENDESSES

Section 1

Introduction & Coordination

Introduction

This plan was prepared to fulfill the requirements of the California Urban Water Management Planning Act (UWMPA). The contents of this plan have been derived from the UWMPA users guide and associated documentation as well as the Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan. The plan incorporates changes required by legislation including:

- AB 2661, Klehs, 1990
- AB 11X, Filante, 1991
- AB 1869, Speier, 1991
- AB 892, Frazee, 1993
- SB 1017, McCorquodale, 1994
- AB 2853, Cortese, 1994
- AB 1845, Cortese, 1995
- SB 1011, Polanco, 1995
- AB 2552, Bates, 2000
- SB 553, Kelley, 2000
- SB 610, Costa, 2001
- AB 901, Daucher, 2001
- SB 672, Machado, 2001
- SB 1348, Brulte, 2002
- SB 1384, Costa, 2002
- SB 1518, Torlakson, 2002
- AB 105, Wiggins, 2004
- SB 318, Alpert, 2004
- 2009 Water Conservation Bill

This plan will be available for public review then be presented to the Susanville City Council for review, approval, and adoption. Upon adoption of this plan by the City of Susanville, it will be filed with the office of Water Conservation in the Department of Water Resources, as required by law. The plan has not as of yet been incorporated into law. However, the City Council is aware of this plan and is studying its implications.

Law

10620 (d) (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practical.

City and Agency Coordination

Lassen County does not have dependent special districts serving culinary water in the area. The irrigation districts serving farms to the south and east of the City have water rights from drainage basins and therefore do not pump ground water for their customers. Brockman and Jensen Sloughs, which serve irrigation water, receive water from diversions on the downstream Susan River and from the Susanville Consolidated Wastewater Secondary Treatment Ponds. The City of Susanville is a part of the Lahontan water basin and participates as a member in the Lahontan Basins Integrated Regional Water Management Program.

Table 1-1: Agency Coordination

	Participated in UWMP Development	Commented on Draft	Attended Public Meetings	Contacted for Assistance	Received copy of Draft	Sent Notice of Intention to Adopt
Other Water Suppliers:						
Lassen County Irrigation	No	No	No	No	Yes	Yes
Water Management Agencies:						
Honey Lake Valley RCD	No	No	No	No	Yes	Yes
Susanville Sanitary District	Yes	Yes	Yes	Yes	Yes	Yes
Relevant Public Agencies:						
Lassen County	Yes	No	No	No	Yes	Yes
City of Susanville	Yes	Yes	Yes	Yes	Yes	Yes

A full copy of the Lahontan Basin Integrated Regional Water Management Program can be found in Appendix H. Lassen County is the lead organization in this water management group as they have governmental jurisdiction over a large number of the participating and affected members. The City of Susanville is a participating, signatory member of this organization.

Other Plan Requirements

According to Water Code 10642 This water management plan includes public participation during the adoption process and encourages involvement of other local governments and social, cultural & economic community groups by; having a copy of the preliminary plan available for public inspection prior to the public meeting, and advertising then holding a public hearing to receive public input. Proof of the public hearing will be included in the appendix of this report once the final plan has been adopted.

According to Water Code 10621 (a) This water management plan will be updated every 5 years on years ending with five (5) and Zero (0).

According to Water Code 10632 This water management plan includes a copy of the draft water shortage contingency resolution/ordinance in the appendix.

According to Water Code 10632 (c) This water management plan includes a copy of the catastrophic water supply interruption plan dealing with a major earthquake or other catastrophic event that might limit water supply. As the majority of the water supply is from spring flow, it is not anticipated that a regional power outage would cause significant water flow problems.

According to Water Code 10644(a) once adapted a copy of the water management plan will be provided to other local governments within the service area within 30 days of adoption.

According to Water Code 10645 once adapted the water management plan will be available for public review at the Susanville city offices 720 South Street, Susanville, CA 96130

According to the Water Conservation Bill of 2009 the plan will also include base line per capita water use, urban water use target, interim water use target, and compliance daily per capita water use.

Section 2

Management Plan

1) City of Susanville's Service Area w/ Projections

This portion of the report describes the service area and projected growth in the Susanville area for the next 20 years. Information is based on the 2000 census posted by the U.S. Census Bureau.

Law:

Law 10631: A plan shall be adopted in accordance with this chapter and shall do all of the following:

Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the suppliers water management planning. The projected population estimates shall be based upon data from State, Regional, or Local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

Location & Size:

The City of Susanville is the county seat of Lassen County and is located in the eastern slopes of the Sierra Nevada Mountains. At the south city limit, Highway 36 (which also serves as Main Street for the city) becomes Highway 395. Highway 395 is a direct route to the Nevada Border. The City of Reno, Nevada is approximately eighty-six miles from the City of Susanville.

The City of Susanville is approximately 4,258 feet above sea level and has an approximate land area of 6.5 square miles. Susanville is incorporated within Lassen County's 4,557 square miles. The population of Susanville is approximately 17,554 citizens. The prison populations from two state prisons located within the city limits are included in the total population counts for the City of Susanville. The total prison population is reported to be 7,963.

Population Projections:

The service area population for this study is 9,791 persons. The 2010 Census indicated that there are 17,554 persons residing within the incorporated City limits of Susanville, there are approximately 200 persons outside the incorporated city that are also served. This brings the total to 17,754. There are also approximately 7,963 institutionalized persons housed in two state prisons (High Desert State Prison and the California Correctional Center), located on the periphery of the City. The 2010 Census is the first to separate the two population groups and as a result past population estimates from both the Census and California Department of Finance have been unreliable. The institutionalized population can vary from approximately 7,500 to 11,000 depending on the number of inmates that are participating with work crews outside of the area, increasing the total population to approximately 20,000, without impacting the service area population. Both prisons are on individual water systems and the City of Susanville does not provide domestic water to either; hence, the service population is 9,791. The City of Susanville service area also includes a number of traveling professionals that reside outside the area but occupy housing units during the work week.

The population data below is based on figures released by the California Department of Finance and has been normalized using 2010 Census data. While there is a significant margin of error in the population estimates for the last six years the numbers have a fair level accuracy and are indicative of other small northern California communities which exhibit a growth rate less than 1% in the same period.

The City of Susanville estimates that growth will continue at a rate of approximately 1% per year from 2010 through 2035. This figure would potentially increase as it did in the 1990's with the addition of large manufacturer or employers moving into the area and creating additional employment opportunities, resulting in a substantial increase to the service area population.

Table 2-1a: Susanville Population Projected Growth

	2005	2006	2007	2008	2009	2010
Water Service Population	9,523	9,467	9,351	9,291	9,747	9,791
Service Area[1]	9,323	9,267	9,151	9,091	9,547	9,591
Total	18,324[2]	18,377[2]	18,138[2]	17,570[2]	17,949[2]	17,554[3]

	2010	2015	2020	2025	2030	2035
Water Service Population	9,791	9,886	10,690	11,224	11,787	12,378

[1] Service area population reflects total population less institutionalized individuals
[2] Population estimate as reported by the California Department of Finance
[3] Total population as reported by the 2010 Census

Weather & Climate Conditions:

Susanville has a semi-arid type climate. The majority of the annual rain fall occurs in the winter months. Annual precipitation averages 16.70 inches. Each year will include approximately 59 days of measurable precipitation.

Table 2-1b: Weather Data

	January	February	March	April	May	June
Average ETO	1.02	1.72	3.50	4.92	6.19	7.30
Average Rainfall (inches)	3.10	2.30	2.00	0.80	0.90	0.60
Average Max. Temp. (°F)	40.1	45.9	53.1	61.5	70.3	79.5
Average Min Temp. (°F)	20.5	24.3	28.8	32.9	39	45.3

Table 2-1c: Weather Data Continued

	July	August	September	October	November	December	Annual
Average ETO	8.42	7.51	5.41	3.38	1.53	0.86	51.76
Average Rainfall (inches)	0.20	0.20	0.50	1.10	1.90	2.70	16.70
Average Max. Temp. (°F)	88.50	87.10	78.40	66.20	51.80	41.90	64.00
Average Min Temp. (°F)	50.40	48.60	42.30	34.90	27.90	22.30	34.70

2) Water Sources

This portion of the report describes the service area and projected growth to receive in the Susanville area in the next 20 years. Information is based on the census posted by the U.S. Census Bureau and other Census reporting agencies.

Law:

Law 10631: A plan shall be adopted in accordance with this chapter and shall do all of the following:

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments to 20 years or as far as data is available. If ground water is identified as an existing or planned source of water available to the supplier, all of the following shall be included in the plan.

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as over drafted or has projected that the basin will become over drafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

Water Source Annual Use & Projections Tabular:

The following is a tabular summary of the Susanville water sources historical demand and projected demands. Tables are reported in millions of gallons (MG).

Table 2-2a: Water Sources, Projected Annual Use

	2010	2015	2020	2025	2030
Cady Springs (MG)	478.82	478.82	478.82	478.82	478.82
Bagwell Springs (MG)	420.48	420.48	420.48	420.48	420.48
Bunyan Well & Pumping Plant #1 (MG)	94.00	96.63	99.34	102.12	104.98
Well & Pumping Plant #3 (MG)	156.00	160.37	164.86	169.47	174.22
Well & Pumping Plant #4 (MG)	20.00	20.56	21.14	21.73	22.34
Well & Pumping Plant #5 (MG)	30.00	30.84	31.70	32.59	33.50
Total	1199.30	1207.70	1216.34	1225.21	1234.34
% Water Flow, Springs (%)	75%	74%	74%	73%	75%
% Water Flow, Ground Wells (%)	25%	26%	26%	27%	25%

Table 2-2b: Water Sources, Historical Annual Use

	2005	2006	2007	2008	2009
Cady Springs (MG)	469.81	354.98	502.51	482.80	454.93
Bagwell Springs (MG)	386.35	263.56	397.47	396.32	391.55
Bunyan Well & Pump Plant #1 (MG)	15.78	35.33	1.42	11.44	12.30
Well & Pumping Plant #3 (MG)	157.37	183.16	204.04	218.10	131.91
Well & Pumping Plant #4 (MG)	35.67	16.02	35.28	20.51	16.89
Well & Pumping Plant #5 (MG)	0.00	0.00	29.84	29.17	19.82
Total	1064.98	853.04	1170.55	1158.34	1027.40
% Water Flow, Springs (%)	80%	73%	77%	76%	82%
% Water Flow, Ground Wells (%)	20%	27%	23%	24%	18%

Table 2-2c: Additional Water Uses and Losses

	2005	2010	2015	2020	2025
Saline Barriers	NA	NA	NA	NA	NA
Raw Water	NA	NA	NA	NA	NA
Recycled	NA	NA	NA	NA	NA
Adjustment of Natural Conservation	NA	NA	NA	NA	NA
Unaccounted-for system loss					
Total	0	0	0	0	0

Table 2-2d: Groundwater Pumping Rights

	Pumping Right - AFY
Bunyan Well & Pumping Plant #1	1100
Well & Pumping Plant #3	2100
Well & Pumping Plant #4	1100
Well & Pumping Plant #5	1100
Total	5400

Note: Water AFY is limited by pump flow only not by water right.

Use & Projections Detail Description:

The City of Susanville has approximately 3422 active service connections in a 6.5 square mile incorporated area and 113 active connections outside of the city limits. In addition, The City of Susanville has two state prisons, High Desert State Prison and the California Correctional Center, located outside of the incorporated areas that were annexed into the City. The inmate population is approximately 8,800, and is counted in the overall population demographics for the City. However, the two prisons operate independent water systems and therefore, they have been excluded from this water management plan in regards to population & active service connections both current and projected. In addition, the Diamond Mountain (Emmerson Lake) Golf Club though annexed into the city, maintains and independent irrigation pumping plant and domestic well.

The City water customers needs are met by utilizing water from Bagwell Springs, (located one mile north of the city) Cady Springs (located two miles west of the city) and three wells (Well #1 and Well #3 and #4 and #5) located southeast of the city. Water from the wells is primarily utilized during the summer to supplement increased demands. The city also has additional caped wells, and locations for future new wells to meet the cities water demands. Additional, City ordinance requires growth projects such as new sub divisions to provide required water for the growth to the city.

Cady Springs. Cady Springs is located about two and a half miles west of Susanville on the north slope of the Susan River Canyon. Cady Springs is at approximately 4,600 feet in elevation which is approximately 300 feet in elevation above the Susan River. The springs are located approximately 1,000 feet south of HWY 36 and are reached by an access road from the highway. Locked gates and cattle fencing control access to the springs. The springs are located on 40 acres of city owned property. The City acquired the water system and water rights from California Pacific National Corporation in 1986. CP National and therefore the City of Susanville have the right to use and consume the entire flow from Cady Springs. (Fleming vs. Bennett et. al., Lassen County Superior Court Action No. 4573, dated and filed April 18, 1940) Cady Springs produces an annual average of 900 gpm in a dry year to 1,500 gpm in a wet year. In 2003 Cady Springs produced an average flow of 911 gpm.

Bagwell Springs. Bagwell Springs is located on a wooded hillside about one and a half miles northwest of Susanville. The springs are approximately 4,485 feet in elevation. A locked gate and

fencing control access to the springs. The City acquired the water system and water rights from CP National Corporation in 1986. CP National and therefore the City of Susanville has the right to use and consume for furnishing water to consumers in its water service area 2.45 cfs (1,122 gpm) of the flow of water from Bagwell Springs. (Fleming vs. Bennett et.al., Lassen County Superior Court Action No. 4573, dated & filed April 18, 1940) Bagwell Springs produces an annual average of 800 gpm. In 2003 Bagwell Springs produced an average flow of 721 gpm.

Bunyan Well and Pumping Plant #1. Well #1 and the pumping plant are located south of Riverside Drive and Grove Street. The casing is 12 inches diameter, with 320 feet of perforation between the depths of 130 and 450 feet below the ground surface. No gravel pack was constructed with this well. It was constructed in 1948. The 75 hp electric pumping unit is capable of producing about 500 gpm which is pumped directly into the water systems Pressure Zone 4. The pumping plant is turned on and off by sensing water levels in the South Street Tank. This well produces approximately 700 gpm, with an annual average production of 92 MG. In 2003 the City of Susanville used about 81 MG from Well #1.

Well and Pumping Plant #3. Well #3 was constructed in 1961 and is located approximately one half mile south of the city limit, off Johnstonville Road. The casing is 12 and 14 inches in diameter with 560 feet of perforation between the depths of 90 and 650 feet below the ground surface. This well produces approximately 1,300 gpm with an annual average production of 152. MG. In 2003 the City of Susanville used about 150 MG from Well #3. The 200hp electric pumping unit is capable of producing about 1,500 gpm which is pumped directly into the water systems Pressure Zone 4. The pumping plant is turned off and on automatically by sensing water levels in the South Street Tank.

Well and Pumping Plant #4. Well #4 was constructed in 1992 and was online for the City of Susanville in 1995. It is located at the northwest corner of Orlo Drive and Skyline Drive. The steel casing is 8 inches in diameter with 125 to 225 feet of perforation at a depth of 290 feet below the ground surface. Well #4 produces approximately 700 gpm and is used to augment the year round water sources as needed. Well #4 is fully automated as of January 2003 and pumps to fill the Bagwell Springs Reservoir when the tank is depleted to a depth of 12 feet. In 2003 Well #4 produced about 20 MG.

Well and Pumping Plant #5 (College Well). Lassen Community College originally owned and operated Well #5, (know at the time as Well #2 to the college). The well was installed in the late 1960's. The college used this well to supply their water needs. The well was rebuilt in 2006. The purpose of the well was originally intended for geothermal power generation. The desired hot well was never located and the project was abandoned. This well is now developed as one of the resources available to obtain water as needed.

Emmerson Lake (Diamond Mountain) Golf Course. The Diamond Mountain Golf Course irrigation pumping plant was constructed in 1971, and is located approximately three miles south of the city limits by way of Richmond Road. The casing is 10 inches in diameter with 240 feet of perforation between the depths of 210 and 450 feet underground. A gravel pack and 40 feet of sanitary seal were constructed with this well. This irrigation plant is independently operated and maintained by the golf course operator/contractor and does not connect to the city municipal water system. The 30 hp, electric pump is capable of producing about 300 gpm and

pumps water directly into the lake (Emerson Lake) and water is then pumped from the lake into the irrigation system. The well pumping plant is turned on and off automatically by sending lake water levels. No information is available on the smaller domestic water well, which serves the golf course clubhouse.

3) Reliability of Supply

This section demonstrates the reliability of the Susanville water supply. Do to the partial use of the ground water when the springs reduce in flow from drought or other problems the demand may still be meet with additional use from ground water production. Over the years of ground water use the aquifer has shown little if any reduction in level.

Law:

Law 10631: (c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(1) An average water year.

(2) A single dry water year.

(3) Multiple dry water years.

Table 2-3a: Water Sources, Dry Year Reliability

	Max For Any Year	Average Year (2000)	Single Dry Year (1995)	Year 1	Year 2	Year 3	Year 4
Cady Springs (MG)	478.82	478.82	473.04	463.58	454.31	445.22	436.32
Bagwell Springs (MG)	420.48	420.48	378.96	371.38	363.95	356.67	349.54
Well & Pumping Plant #1(Bunyan)(MG)	358.00	92.00	92.00	92.00	92.00	92.00	92.00
Well & Pumping Plant #3 (MG)	684.00	152.00	152.00	152.00	152.00	152.00	152.00
Well & Pumping Plant #4 (MG)	358.00	20.00	20.00	20.00	20.00	20.00	20.00
Well & Pumping Plant #5 (College)(MG)	358.00	0.00	47.30	64.34	81.04	97.41	113.45
Total Water Use (MG)	2657.30	1163.30	1163.30	1163.30	1163.30	1163.30	1163.30
% of Normal	228%	100%	100%	100%	100%	100%	100%

Table 2-3b: Water Source Not Available on Consistent Basis

	Legal	Environmental	Water Quality	Climate
Cady Springs	X			X
Bagwell Springs	X			X
Well & Pumping Plant #1(Bunyan)	X	X		
Well & Pumping Plant #3	X			
Well & Pumping Plant #4	X			
Well & Pumping Plant #5 (College)	X	X		

Note: Although not anticipated, a Legal dispute could always limit use. The city currently holds the rights to all sources. Environmental is listed on Wells #1 and #5 as a power outage would stop production. Wells #3 and #4 have emergency generators. As show in table 2-3a, the City has rights to 228% of an average year use. The loss of any one or multiple water resource as listed in Table 2-3b can be compensated for by other available resources. There have been water quality issues in the past and none are anticipated in the Future.

4) Transfer or Exchange Opportunities

This section demonstrates the possible exchange and transfer possibilities of water resources. Susanville has never had problems with meeting water demands in past drought years.

Law:

Law 10631 (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

Table 2-4a: Water Source Transfer & Exchange Opportunities

	Transfer	Short	Quantity	Long	Quantitie
Emmerson Lake (Golf Course)	Transfer	No Plans	157 MG	No Plans	157 MG
College Well	Transfer	Ownership	NA	Ownership	NA
Prison System	Exchange	No Plans	NA	No Plans	NA
Total Possible			157 MG		157 MG

There are currently no sale or exchange opportunities of water resources for the Susanville area.

5) Desalinization

The City of Susanville has no opportunities for desalinization projects or resources.

6) Future Water Supply Projects and Description

The City of Susanville currently has no future water supply project planned. As stated above the City does have some caped wells and some potential future new well locations. Current and future projected demand, based on available supply and current project population growth, does not warrant a more detailed review of future water supply projects at this time.

Table 2-6a: Future Water Supply Projects

	Project Start Date	Project Completion	Normal-year AF to agency	Single-dry year yield AF	Multiple-Dry-Year 1 AF	Multiple-Dry-Year 2 AF	Multiple-Dry-Year 3 AF
No Planned Project	NA	NA	NA	NA	NA	NA	NA

7) Water Use By Customer, Past Current & Future

This section indicates the possible customer connection to the City of Susanville's water system.

Law:

Law 10631 (e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments as previously outlined, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(A) Single-family residential

(B) Multifamily

(C) Commercial

(D) Industrial

(E) Institutional and governmental

(F) Landscape

(G) Sales to other agencies

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof

(I) Agricultural

Table 2-7: Water Use by Customer, Past Current & Future

	Water Use Sectors	Single Family	Multi-Family	Commercial/Other	Total
2000	# of Accounts	2789	824	656	4269
	Annual Demand (MG)	724.33	214.00	170.37	1108.70
2005	# of Accounts	2875	824	671	4370
	Annual Demand (MG)	765.33	219.35	178.62	1163.30
2010	# of Accounts	2867	847	674	4389
	Annual Demand (MG)	777.90	229.83	182.97	1190.69
2015	# of Accounts	2947	871	693	4511
	Annual Demand (MG)	783.23	231.40	184.22	1198.85
2020	# of Accounts	3030	895	713	4638
	Annual Demand (MG)	788.71	233.02	185.51	1207.24
2025	# of Accounts	3115	920	733	4768
	Annual Demand (MG)	794.34	234.69	186.84	1215.86

8) Demand Management Measures

The City of Susanville is not a signatory to the Memorandum of Understanding of the Urban Water Conservation in California (MOU) and is not a member of the California Urban Water Conservation Council (CUWCC). The City of Susanville is a part of the Lahontan water basin integrated regional water management program. The City actively works with regional agencies to ensure that current and future water demands are planned for and met.

The City of Susanville will address the Demand Management Measures concerning the Urban Water Management Planning Act by addressing the potential programs that the City could implement while complying with the Best Management Practices targets in the CUWCC/MOU where applicable.

Law:

Law 10631 (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A)(1) Water survey programs for single-family residential and multifamily residential customers.
(B)(2) Residential plumbing retrofit.
(C)(3) System water audits, leak detection, and repair.
(D)(4) Metering with commodity rates for all new connections and retrofit of existing connections.
(E)(5) Large landscape conservation programs and incentives.
(F)(6) High-efficiency washing machine rebate programs.
(G)(7) Public information programs.
(H)(8) School education programs.
(I)(9) Conservation programs for commercial, industrial, and institutional accounts.
(J)(10) Wholesale agency programs.
(K)(11) Conservation pricing.
(L)(12) Water conservation coordinator.
(M)(13) Water waste prohibition.
(N)(14) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
(2) Include a cost-benefit analysis, identifying total benefits and total costs.
(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

(j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

The City of Susanville has implemented several of the Demand Management Measures as outlined in the UWMP Act to encourage water conservation in our service area:

DMM 1 – Interior and Exterior Water Survey/Audits for Single Family and Multi-family Customers: (Part 2.6) 10631 (f.1)(a)

The City of Susanville has implemented water audits based on two key indicators; First, when the water meter is being read. If current flow rates seem abnormal the meter reader will immediately perform an exterior site review to identify potential leaks. Additionally, contact is made with the owner to try and identify potential leaks. Second, The utility billing program generates a list of potential leak customers based on prior read and use rates. Contact is made with the water use customers to identify why abnormal flow has occurred. The City will continue to use the computer based utility billing system to identify and resolve water system problems.

This program has reduced water consumption and water costs by significantly reducing the need to run a second well during the summer months.

The City is currently reviewing other ways to cost effectively promote water conservations. Some items that have been discussed are; Single family surveys could be conducted for interior audit of water uses measuring existing plumbing fixtures and tests for water closet leakage using dye tablets, offer and install low-flow water showerheads, adjust hot water heaters temperatures, and other water conservation measures. Further, single family surveys could include exterior water uses audits such as testing sprinkler systems for efficiency and provide information regarding water efficient landscaping, design, and plants. Similar multi-family customer water use audits could result in water conservation.

The potential costs effectiveness of such programs needs to be determined and presented for approval. Budgets would need to be established and approved to perform the audits and any improvements or fixture replacement subsidized by the City. Also water Conservation programs would need to be evaluated to make sure they do not have a negative financial impact on the city water department fund (see DMM Return on investment below).

DMM 2 – Retrofits/Rebates Residential Plumbing/High-efficiency washing machine/ultra-low-flush toilet Replacement: (Part 2.6) 10631 (f.1)(b)(f)(n)

The City of Susanville, with its public education programs (see DMM 7), currently promotes and encourages water users to upgrade to new low water use fixtures and appliances as appliances wear out and need replacement. This includes plumbing retrofits fixtures, High-efficiency washing machines, and ultra-low-flush toilets. The City does not provide any subsidies or rebates for plumbing retrofits at the present time. Such rebate programs are not locally cost-effective (the present value of the local benefits is less than the present value of local costs to implement) Supporting documentation is provided in the Return on Investment" section below. The City has required new development to include

low-flow/low flow flush devices since 1996. The City has considered implementing a retrofit program for single and multi-family customers occupying structures predating 1996.

DMM 3 – Distribution System Water Audits, Leak Detection and Repair: (Part 2.6) 10631 (f.1)(c)

The City of Susanville currently has monthly meter readings for all water entering and leaving the water system. Following meter readings an audit to find leaks is done to evaluate the system as a whole. Water audits and leak detection is a regular program. Leaks are repaired as they are discovered. Leak detection is done through meter monitoring and visual inspection. The City staff is trained by AWWA – DWR co-sponsored training programs. The water department has a staff of five individuals, two of which are D-1 certified and two more are D-2 certified. The fifth is a new employee and is training to become certified and should do so in the next two years.

This program has reduced water consumption and water costs by reducing the need to run a second well during the summer months.

Meter calibration and meter change out program was implemented in 1996 and is still underway. On average, City Water Department crews survey and inspect approximately 35 miles of main and laterals each year. The City has an annual valve exercise program using the City Water Department crews and the City Fire Department. In addition, the City Fire Department has standardized the fire hydrants and associated fire protection equipment.

DMM 4 – Metering with Commodity Rates for all new connections and retrofit of existing connections: (Part 2.6) 10631 (f.1)(d)

The City is currently fully metered for all customers sectors, including single-family, multi-family, commercial, industrial, institutional and government facilities. Some fire sprinkler systems are not metered. Historically, a monthly service fee was charged for connecting a fire suppression system to the city water supply.

The service fee was removed several years ago but is currently being reviewed for reinstatement. The City will continue to install and read meters on all services, continue to conduct meter calibration and replacement programs. Meter installation costs are included in the new service fees and the meter replacement and rotation program costs are included in the Water Department Budget.

DMM 5 – Large landscape conservation programs and incentives: (Part 2.6) 10631 (f.1)(e)

The City of Susanville currently encourages water users to reduce water consumption by implementing low water demand landscaping. The City has adopted the "Model Water Efficient Landscape Ordinance" based on the California Code of Regulations Title 23. Water Division 2. Department of Water Resources Chapter 2.7. Ordinance Dated September 10, 2009. (see appendix E) The City does not provide any subsidies or rebates for landscaping at the present time. Such rebate programs are not locally cost-effective (the

present value of the local benefits is less than the present value of local costs to implement) Supporting documentation is provided in the Return on Investment" section below.

DMM 6 – Rebates, High-efficiency washing machine program: (Part 2.6) 10631 (f.1)(f)

See DMM #2 "Retrofits/Rebates residential plumbing/High-efficiency washing machine/ultra-low-flush toilet replacement" above.

DMM 7 - Public Information and School Education: (Part 2.6) 10631 (f.1)(g)(h)

Currently the City promotes water conservation through it's quarterly bulletin mailed with utility bills as well as radio and news paper public service announcements.

DMM 8 – School education programs: (Part 2.6) 10631 (f.1)(h)

This DMM is grouped in DMM 7 "Public information and School education programs" above.

DMM 9 – Conservation programs for commercial, industrial, and institutional accounts/Conservation pricing/conservation coordination: (Part 2.6) 10631 (f.1)(i)(k)(l)

The City has implement an increasing penalty rate structure that charges higher rates for water used by customers that use water in excess of an established reasonable allotment. The City of Susanville currently promotes water conservation and water waste prevention through zero or minimal cost efforts associated with and in conjunction with other promotional efforts. However, any dollars spent to promote water conservation have a negative return on investment for the City. Supporting documentation is provided in the DMM Return on Investment" section below. The City can not justify a Conservation Coordinator at this time.

DMM 10 – Wholesale agency programs: (Part 2.6) 10631 (f.1)(j)

This DMM is not applicable to the City because the City is not a wholesale agency.

DMM 11 – Conservation pricing: (Part 2.6) 10631 (f.1)(k)

See DMM 9 "Conservation programs for commercial, industrial, and institutional accounts/Conservation pricing/ Conservation coordination" above.

DMM 12 – Conservation coordinator: (Part 2.6) 10631(f.1)(l)

See DMM 9 "Conservation programs for commercial, industrial, and institutional accounts/Conservation pricing/ Conservation coordination" above.

DMM 13 – Water Waste Prohibition:
(Part 2.6) 10631 (f.1)(m)

See DMM 9 "Conservation programs for commercial, industrial, and institutional accounts/Conservation pricing/ Conservation coordination" above.

DMM 14 – Residential ULFT replacement Programs: (Part 2.6) 10631(f.1)(n)

See DMM 2 "Retrofits/Rebates, Residential Plumbing/High-efficiency washing machine/Ultra low flush toilet replacement program" above.

Summary

DMM Return on Investment

The City of Susanville currently promotes water conservation and water waste prevention through zero or minimal cost efforts associated with and in conjunction with other promotional efforts. It is cost effective for the city to implement some of the DMM's above .However, any dollars spent to promote water conservation have a negative return on investment for the City. This includes dollars potentially spent to promote The Water Conservation Bill of 2009(SBX7-7) that was enacted in November of 2009. To increase water use efficiency, that requires urban water suppliers reduce the statewide average per capita daily water consumption by 20% by December 31, 2020.

Some of the DMM's of the UWMP Act (CWC 10631) above are not locally cost-effective (the present value of the local benefits is less than the present value of the local costs to implement). The return on investment does not justify implementation. (See 10631.5(a)) (or page B-1 of Part II UWMP Supporting Information). This is primarily the case because of the unique geographical location of the city, and the Cities water rights that allows the city to obtain 90% of the required Annual Consumption water supply from two springs. These springs have consistently supplied water with very little deviation in the flow rates. During extreme drought years the springs only dropped about 5% in flow. During extreme hot summer weather conditions, pumping is occasionally required to keep up with water demands primarily caused by landscape. Based on winter water demand flow rates, and annual water consumption, none landscape water demand accounts for 30% of the Cities annual water usage. Additionally, during summer months, none landscape water consumption accounts for less than 20% of the monthly consumption.

All water supply systems in the City must be maintained regardless of water source or water demand. The City has a moral and legal obligation to insure that the water system operate in the most cost effective and efficient manner based on current known and future projected best management practices. Best management practices, as well as moral obligations, require the city to try and minimize water rates while ensuring sufficient revenue to cover water system costs. Currently, 90% of the City's water supplies come from free flowing springs and hence have a $0.0 dollar incremental cost. Any efforts to reduce this water consumption will decrease water department revenues requiring an increase in water rates to make up the difference. This unique situation allows the City both morally and ethically to allow a customer who wants to water there "Extravagant" flower beds, and pay for the water, go ahead, because, if we do not use it we will have to

waste it, as over flow, and we will not only loose the water but also the revenue that water could have generated.

Table 2-8: Water Cost-Benefit review resulting from DMMs

	Current Per-AF Cost ($)	Current Per-AF Benefit ($)	Future Per-AF Cost ($)	Future Per-AF Benefit ($)
DMM #1 Customer Water Survey/Audits	1.96	1.96	1.00	1.00
DMM #2 Plumbing Retrofits/Rebates	0.00	0.75	0.00	0.75
DMM #3 Distribution Water Audits	0.42	0.42	0.50	0.50
DMM #4 Metering/Rates	0.00	0.42	0.00	0.50
DMM #5 Large Landscape Conservation	0.10	0.20	0.10	0.20
DMM #6 Rebates Washing Machines (See DMM #2)				
DMM #7 Public Education/Information	0.50	0.50	0.50	0.50
DMM #8 School Education (See DMM #7)				
DMM #9 Conservation Programs/Price	0.00	0.42	0.00	0.40
DMM #10 Wholesale Programs (NA)				
DMM #11 Conservation Pricing (See DMM #9)				
DMM #12 Conservation Coordinator (See DMM #9)				
DMM #13 Water Waste Prohibition (See DMM #9)				
DMM #14 ULFT Replacement (See DMM #2)				
Total	2.98	4.67	2.10	3.85

9) The Lahontan Water Basin

The City of Susanville is a part of the Lahontan water basin and there is a Lahontan Basin integrated regional water management Program that the city of Susanville is a signature member of. A full copy of the April 4, 2011 (in progress) report of the management program can be found in Appendix D. Details of the Lahontan Water Basin and basin users can be found in this report.

10)Waste Water Collection Systems

The City of Susanville does not own or operate any of the waste water collection lines or facilities. These facilities are owned and operated by the Susanville Sanitary District. As such Information regarding the Susanville Sanitary District is not included in this report.

11)Daily Per Capita Water Use

The City of Susanville obtains 90% of its annual water supply from free flowing springs. This unique geographical location and available water source drives the incremental cost to supply water down to the $0.00 amount. (see section 9 Above Summary {DMM return on investment}). The City has a moral and legal obligation to insure that the water system operate in the most cost effective and efficient manner based on current known and future projected best management practices. Best management practices, as well as moral obligations, require the city to try and minimize water rates while ensuring sufficient revenue to cover water system costs.

Law:

The Water Conservation Bill of 2009(SBX7-7) that was enacted in November of 2009. To increase water use efficiency, that requires urban water suppliers reduce the statewide average per capita daily water consumption by 20% by December 31, 2020. The Bill also requires urban water suppliers to report their base line daily per capita water use, Urban water use target, interim water use target, and compliance daily per capita water use.

Table 2-9a: Water Per Capita Use Historic.

	2005	2006	2007	2008	2009	2010
Service Area Population	9,523	9,467	9,351	9,291	9,747	9,791
Water Use (MG)	1,065	853	1,171	1,158	1,027	1,163
Per Capita Gal/day use	306	247	343	341	289	325

Table 2-9b: Water Per Capita Use Future.

	2010	2015	2020	2025	2030	2035
ServiceArea Population	9,791	9,886	10,690	11,224	11,787	12,378
Water Use (MG)	1,163	1,163	1,163	1,163	1,163	1,163
Per Capita Gal/day use	326	322	298	284	270	257

The base line gal/day will be calculated from average water consumption of 1,163 million gallons (see table 2-3a) and the population in 2010. The per capita baseline is 326gal/day. The target value will be 257 gal/day, and the interim values are as indicated in table 2-9b above. This reduction rate allows per capita water reduction while maintaining sufficient revenues to uphold the moral and legal obligation the City has to insure that the water system operates in the most cost effective and efficient manner based on current known and future projected best management practices.

Section 3

Water Shortage Contingency Plan

The purpose of the Water Conservation/Rationing Plan is to establish a drought management plan to equitably distribute the available water to the City's customers, and to insure an adequate supply for human consumption, sanitation, fire protection, commercial, industrial and medical needs.

Law:

Law 10632: A plan shall be adopted in accordance with this chapter and shall do all of the following:

Stage I - Voluntary Conservation:

The City's supply (treatment) and/or distribution system is able to meet the future projected water demands of its customers in the immediate future. Some restrictions do apply in an effort to reduce water consumption. Water conservation is encouraged through public education.

Stage II – Water Alert:

There is a probability that the City's supply (treatment) and/or distribution system will not be able to meet all water demands of the City's customers. Additional restrictions apply in an effort to increase the conservation by 10% above Stage One.

Stage III – Water Emergency:

The City's supply (treatment) or distribution system will not be able to meet all the demands of the City's customers. All indicated water reductions are to be based upon Year 2000 monthly City acre-feet use. This is one of the worst water years recorded and the basis of estimations

1) Stage I – Voluntary Conservation Use

Note: 0-15% expected conservation of City's acre-feet monthly use.

1. Water shall be used for beneficial uses only; all unnecessary and wasteful uses of water shall be prohibited.

2. Water shall be confined to the consumer's property and shall not be allowed to run off to adjoining property or to the roadside ditch, gutter, i.e. landscape irrigation, beyond the point of saturation.

3. Free-flowing hoses for any use shall be prohibited. Customers shall be encouraged to use automatic shutoff devices on any hose or filling apparatus, including evaporative coolers.

4. Leaking consumer pipes or faulty sprinklers shall be repaired immediately.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a re-circulation pump, and shall be constructed to be leak proof.

6. All industries and large water users, such as schools, supermarkets, civic buildings etc. are encouraged to develop a water conservation plan indicating 15% reduction in water usage, and submit to the City of Susanville for approval within thirty (30) days of this declaration.

7. Parks and school grounds shall be watered at night only.

8. Water for golf courses may be restricted to use of reclaimed water when available (wastewater treatment plant) for irrigation purposes.

9. The City of Susanville shall encourage water reclamation for any agricultural, commercial, or industrial facility, as long as health and safety requirements can be met.

10. All new developments (homes) shall be required to install low flow devices (i.e., toilets and shower heads). All devices are to be approved by the Susanville City Council prior to construction.

11. Restaurant customers shall receive water only upon request.

12. The City of Susanville shall conduct an extensive water conservation program which will include handouts, mailers, newspaper notices, along with radio/television spots. The City of Susanville shall have available to all customers, water conservation retrofit kits.

2) Stage II – Water Alert

Note: 15% - 25% Expected Conservation of City's Monthly Acre-Feet Use

1. All pools and spas shall be equipped with a re-circulation pump and shall be constructed leak proof. Water use for ornamental ponds and fountains shall be prohibited.
2. All industries and large commercial potable water users, such as schools, supermarkets, civic buildings, etc., shall update their Water Conservation Plans to indicate a 25% reduction in water use, and submit to the City of Susanville for approval within thirty (30) days of this declaration.

3. Parks and school grounds shall be watered at night only, three nights per week, and shall update their Water Conservation Plan to indicate a 25% reduction in water use and submit to the City of Susanville for approval within thirty (30) days of this declaration.

4. All new developments (homes) shall be required to install low flow devices, i.e., toilets and shower heads, and to pay a $300 fee to the City of Susanville prior to construction for purchase of water conservation retrofit kits.

5. Upon a Stage Two declaration, no new landscaping shall be installed.

6. All residential and commercial customers shall be required to water at night and for only three (3) days per week. They shall also be encouraged to use low flow sprinkler heads and/or drip systems.

7. Washing of driveways and parking lots, except as necessary for health and safety, shall be prohibited.

8. All City of Susanville residential and commercial water customers using excessive quantities of water shall be required to install retrofit kits. (The City of Susanville will have water conservation retrofit kits available.)

9. The City of Susanville may tier water rates to discourage excessive use of water and penalize water customers who fail to meet the 15% - 25% reduction.

3) Stage III – Water Emergency

Note: 25% -40% expected conservation of City monthly acre-feet use. Stage I and Stage II plus the amendments and additions listed below shall be established for stage three water emergency regulations.

1. Domestic water use shall be restricted so as to meet the water for public/community health and safety, i.e., fire suppression, medical, minimum requirements for personal health and safety. Priority shall be given to the supplying adequate veterinarian, and educational institutions.

2. Residential and commercial landscaping and or lawn irrigation with potable City of Susanville water shall be prohibited.

3. Swimming pools that have been filled prior to Stage Three shall not be emptied and refilled upon the declaration of Stage Three.

4. All industries and large commercial potable water users, such as schools, supermarkets, civic buildings, etc., shall update their Water Conservation Plan to indicate a 40% reduction in water use and submit to the City of Susanville for approval within 15 days of the declaration.

5. Parks, schools, and public grounds shall receive watering from reclaimed water only, such as water treatment plant backwash water, when available.

6. The City of Susanville shall require water reclamation for any agricultural, commercial, or industrial facility, as long as health and safety requirements can be met.

7. All new development (homes) shall be required to install low flow devices, i.e., toilets and shower heads, and to pay a $500 fee to the City of Susanville prior to construction for purchase of water conservation kits.

8. No new development (homes) shall be permitted unless the developer has paid connection fees prior to Stage Three declaration.

9. Flushing of sewers and fire hydrants shall be prohibited except in cases of emergency.

10. No potable water from the City of Susanville system shall be used for construction purposes, such as dust control, compaction, or trench jetting.

11. The Susanville City Council may tier water rates to discourage excessive use of water and penalize water customers who fail to meet minimum 25% - 40% reduction.

4) Exceptions, Variances and Appeals

For hardship cases only, variances may be granted for any of the above regulations upon application in writing, stating in detail, the circumstances warranting special consideration. Appeals of decisions made by the City of Susanville may be taken to the City Council by written request. It must be recognized that due to the water shortage emergency, the City of Susanville has very limited ability to grant exceptions and/or variances to this water conservation/rationing plan, especially in Stage Two and Three.

Table 3-1: Penalties and Charges

	Stage When Penalty Takes Effect
Penalty for excess use	2
Charge for excess use	2

Section 4

Future Estimates

1) Estimate of Minimum Supply for Next Three Years

The total flow for the City of Susanville should not decrease when considering three drought years. The limited use of the underground aquifer can be used more in the event the springs reduce in flow. The aquifer has not changed in level in several years. The demand in the area is not likely to change that. The only minimum supply that may change would be that of the springs which are more dependant on annual rain fall.

Table 4-1: Estimated Minimum Supply for Next Three Years

	Average Year	Year 1	Year 2	Year 3
Cady Springs (MG)	478.82	469.25	459.86	450.66
Bagwell Springs (MG)	420.48	412.07	403.83	395.75
Bunyan Well & Pumping Plant #1 (MG)	48.36	47.39	46.44	45.51
Well & Pumping Plant #3 (MG)	79.89	78.29	76.73	75.19
Well & Pumping Plant #4 (MG)	10.51	10.30	10.10	9.89
Well & Pumping Plant #5 (MG)	10.51	10.30	10.10	9.89
Total Water Use (MG)	1048.57	1027.60	1007.05	986.91
% of Normal	100%	98%	96%	94%

4.1 Penalties and Charges

Table 4-2: Penalties and Charges

	Stage When Penalty Takes Effect
Penalty for excess use	2
Charge for excess use	2

4.2 Revenue and Expenditure Impacts

There are two basic sources of revenue that sustain the water system and they are utility water rates paid by customers, and fines and penalties imposed for overuse and or abuse of water during regulated times.

Table 4-3a: Proposed measures to overcome revenue impacts

	Check if Discussed
DMMs	
Rate Increases	X
Fines/Penalties	X
Regulate Watering Days	X

As spring flow water sources decreases throughout the summer and demand remains constant or increases do to heat and increases in stress on area vegetation the amount of required pumped water increases. This causes an increase in expenditures as both utility cost and equipment repair and replacement costs go up.

Table 4-3b: Proposed measures to overcome expenditure impacts

	Check if Discussed
DMMs	
Rate Increases	X
Fines/Penalties	X
Regulate Watering Days	X

4.3 Reduction Measuring Mechanism

Table 4-4: Water Use Monitoring Mechanisms

	Type data expected
Metering	K Gallons
Penalties	# of Occurances

4.4 Water Recycling

Water recycling is not applicable to the area

4.5 Water Quality Impacts

Table 4-5: Current & Projected water supply changes due to water quality – percentage

	2005	2010	2015	2020	2025	2030 - opt
Cady Springs	0	0	0	0	0	0
Bagwell Springs	0	0	0	0	0	0
Bunyan Well & Pumping Plant #1	0	0	0	0	0	0
Well & Pumping Plant #3	0	0	0	0	0	0
Well & Pumping Plant #4	0	0	0	0	0	0
Well & Pumping Plant #5	0	0	0	0	0	0

4.6 Multiple Dry Year Progressive Evaluation

Table 4-6: Projected Supply during Multiple Dry Year Period Ending in 2015 – AF Year

0	2011	2012	2013	2014	2015
Supply	1153.43	1095.76	1073.84	1052.37	1031.32
% of projected normal	100.0%	95.0%	93.1%	91.2%	89.4%

Table 4-7: Projected Demand Multiple Dry Year Period Ending in 2015 - AFY

	2011	2012	2013	2014	2015
Demand	1048.6	1053.8	1059.1	1064.4	1069.7
% of projected normal	100.0%	100.5%	101.0%	101.5%	102.0%

Table 4-8: Projected Supply and Demand Comparison during Multiple Dry Year Period ending in 2015 – AF Year

	2011	2012	2013	2014	2015
Supply Totals	1153	1096	1074	1052	1031
Demand Totals	1049	1054	1059	1064	1070
Difference	105	42	15	-12	-38
Difference as % of Supply	9.09%	3.83%	1.37%	-1.14%	-3.72%
Difference as % of Deman	10.00%	3.98%	1.39%	-1.13%	-3.59%

Table 4-9: Projected Supply during Multiple Dry Year Period Ending in 2020 – AF Year

	2016	2017	2018	2019	2020
Supply	1153.43	1095.76	1073.84	1052.37	1031.32
% of projected normal	100.0%	95.0%	93.1%	91.2%	89.4%

Table 4-10: Projected Demand Multiple Dry Year Period Ending in 2020 = AFY

	2016	2017	2018	2019	2020
Demand	1075.0	1080.4	1085.8	1091.3	1096.7
% of projected normal	100.0%	100.5%	101.0%	101.5%	102.0%

Table 4-11: Projected Supply and Demand Comparison during Multiple Dry Year Period ending in 2020 – AF Year

	2016	2017	2018	2019	2020
Supply Totals	1153	1096	1074	1052	1031
Demand Totals	1075	1080	1086	1091	1097
Difference	78	15	-12	-39	-65
Difference as % of Supply	6.80%	1.33%	-1.04%	-3.37%	-5.67%
Difference as % of Deman	7.29%	1.42%	-1.10%	-3.56%	-5.96%

Table 4-12: Projected Supply during Multiple Dry Year Period Ending in 2025 – AF Year

	2021	2022	2023	2024	2025
Supply	1153.43	1095.76	1073.84	1052.37	1031.32
% of projected normal	100.0%	95.0%	93.1%	91.2%	89.4%

Table 4-13: Projected Demand during Multiple Dry Year Period Ending in 2025= AFY

	2021	2022	2023	2024	2025
Demand	1102.2	1107.7	1113.2	1118.8	1124.4
% of projected normal	100.0%	100.5%	101.0%	101.5%	102.0%

Table 4-14: Projected Supply and Demand Comparison during Multiple Dry Year Period ending in 2025 – AF Year

	2021	2022	2023	2024	2025
Supply Totals	1153	1096	1074	1052	1031
Demand Totals	1102	1108	1113	1119	1124
Difference	51	-12	-39	-66	-93
Difference as % of Supply	4.44%	-1.09%	-3.67%	-6.31%	-9.03%
Difference as % of Deman	4.65%	-1.08%	-3.54%	-5.94%	-8.28%

Table 4-15: Projected Supply during Multiple Dry Year Period Ending in 2030 – AF Year

	2026	2027	2028	2029	2030
Supply	1141.87	1084.77	1063.08	1041.82	1020.98
% of projected normal	100.0%	95.0%	93.1%	91.2%	89.4%

Table 4-16: Projected Demand during Multiple Dry Year Period Ending in 2030-AFY

	2026	2027	2028	2029	2030
Demand	1118.7	1124.3	1129.9	1135.6	1141.2
% of projected normal	102.5%	103.0%	103.6%	104.1%	104.6%

Table 4-17: Projected Supply and Demand Comparison during Multiple Dry Year Period ending in 2030 – AF Year

	2026	2027	2028	2029	2030
Supply Totals	1142	1085	1063	1042	1021
Demand Totals	1119	1124	1130	1136	1141
Difference	23	-40	-67	-94	-120
Difference as % of Supply	2.03%	-3.64%	-6.29%	-9.00%	-11.78%
Difference as % of Demand	2.07%	-3.52%	-5.92%	-8.26%	-10.54%

4.7 Opportunities for Development of Future Water Supply Projects

The City of Susanville currently has sufficient water sources for the foreseeable future based on current future demand estimates. The city also as additional capacity in the form of capped wells that could be brought on line if demand requires it. Out side of things listed above the City has no other future water supply projects or programs in place.

4.8 Resource Maximization (Import Minimization) plan

The City of Susanville currently has sufficient water sources for the foreseeable future and has no reason to import water. Automatic systems are in place that only provides water from secondary, more expensive, water sources if system demand or system sources require it. System alarms and operator call outs are in place to alert the water system operator of deviations from normal operation. Water system leaks are quickly identified and mitigated to maximize system performance.

Section 5

Review & Implementation

The purpose of the Water Conservation/Rationing Plan is to establish a drought management plan to equitably distribute the available water to the City's customers, and to insure an adequate supply for human consumption, sanitation, fire protection, commercial, industrial and medical needs.

Law:

Law 10631: A plan shall be adopted in accordance with this chapter and shall do all of the following:

Stage I - Voluntary Conservation:

The City's supply (treatment) and/or distribution system is able to meet much or most of the water demands of its customers in the immediate future. Some restrictions do apply in an effort to reduce water consumption. Water conservation is encouraged through public education.

Stage II – Water Alert:

There is a probability that the City's supply (treatment) and/or distribution system will not be able to meet all water demands of the City's customers. Additional restrictions apply in an effort to increase the conservation by 10% above Stage One.

Stage III – Water Emergency:

The City's supply (treatment) or distribution system will not be able to meet all the demands of the City's customers. All indicated water reductions are to be based upon Year 2000 monthly City acre-feet use. This is one of the worst water years recorded and the basis of estimations

1) Stage I – Voluntary Conservation Use

Note: 0-15% expected conservation of City's acre-feet monthly use.

1. Water shall be used for beneficial uses only; all unnecessary and wasteful uses of water shall be prohibited.

2. Water shall be confined to the consumer's property and shall not be allowed to run off to adjoining property or to the roadside ditch, gutter, i.e. landscape irrigation, beyond the point of saturation.

3. Free-flowing hoses for any use shall be prohibited. Customers shall be encouraged to use automatic shutoff devices on any hose or filling apparatus, including evaporative coolers.

4. Leaking consumer pipes or faulty sprinklers shall be repaired immediately.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a re-circulation pump, and shall be constructed to be leak proof.

6. All industries and large water users, such as schools, supermarkets, civic buildings etc. are encouraged to develop a water conservation plan indicating 15% reduction in water usage, and submit to the City of Susanville for approval within thirty (30) days of this declaration.

7. Parks and school grounds shall be watered at night only.

8. Water for golf courses may be restricted to use of reclaimed water when available (wastewater treatment plant) for irrigation purposes.

9. The City of Susanville shall encourage water reclamation for any agricultural, commercial, or industrial facility, as long as health and safety requirements can be met.

10. All new developments (homes) shall be required to install low flow devices (i.e., toilets and shower heads). All devices are to be approved by the Susanville City Council prior to construction.

11. Restaurant customers shall receive water only upon request.

12. The City of Susanville shall conduct an extensive water conservation program which will include handouts, mailers, newspaper notices, along with radio/television spots. The City of Susanville shall have available to all customers, water conservation retrofit kits.

2) Stage II – Water Alert

Note: 15% - 25% Expected Conservation of City's Monthly Acre-Feet Use

13. All pools and spas shall be equipped with a re-circulation pump and shall be constructed leak proof. Water use for ornamental ponds and fountains shall be prohibited.
14. All industries and large commercial potable water users, such as schools, supermarkets, civic buildings, etc., shall update their Water Conservation Plans to indicate a 25% reduction in water use, and submit to the City of Susanville for approval within thirty (30) days of this declaration.

15. Parks and school grounds shall be watered at night only, three nights per week, and shall update their Water Conservation Plan to indicate a 25% reduction in water use and submit to the City of Susanville for approval within thirty (30) days of this declaration.

16. All new developments (homes) shall be required to install low flow devices, i.e., toilets and shower heads, and to pay a $300 fee to the City of Susanville prior to construction for purchase of water conservation retrofit kits.

17. Upon a Stage Two declaration, no new landscaping shall be installed.

18. All residential and commercial customers shall be required to water at night and for only three (3) days per week. They shall also be encouraged to use low flow sprinkler heads and/or drip systems.

19. Washing of driveways and parking lots, except as necessary for health and safety, shall be prohibited.

20. All City of Susanville residential and commercial water customers using excessive quantities of water shall be required to install retrofit kits. (The City of Susanville will have water conservation retrofit kits available.)

21. The City of Susanville may tier water rates to discourage excessive use of water and penalize water customers who fail to meet the 15% - 25% reduction.

3) Stage III – Water Emergency

Note: 25% -40% expected conservation of City monthly acre-feet use. Stage I and Stage II plus the amendments and additions listed below shall be established for stage three water emergency regulations.

1. Domestic water use shall be restricted so as to meet the water for public/community health and safety, i.e., fire suppression, medical, minimum requirements for personal health and safety. Priority shall be given to the supplying adequate veterinarian, and educational institutions.

2. Residential and commercial landscaping and or lawn irrigation with potable City of Susanville water shall be prohibited.

3. Swimming pools that have been filled prior to Stage Three shall not be emptied and refilled upon the declaration of Stage Three.

4. All industries and large commercial potable water users, such as schools, supermarkets, civic buildings, etc., shall update their Water Conservation Plan to indicate a 40% reduction in water use and submit to the City of Susanville for approval within 15 days of the declaration.

5. Parks, schools, and public grounds shall receive watering from reclaimed water only, such as water treatment plant backwash water, when available.

6. The City of Susanville shall require water reclamation for any agricultural, commercial, or industrial facility, as long as health and safety requirements can be met.

7. All new development (homes) shall be required to install low flow devices, i.e., toilets and shower heads, and to pay a $500 fee to the City of Susanville prior to construction for purchase of water conservation kits.

8. No new development (homes) shall be permitted unless the developer has paid connection fees prior to Stage Three declaration.

9. Flushing of sewers and fire hydrants shall be prohibited except in cases of emergency.

10. No potable water from the City of Susanville system shall be used for construction purposes, such as dust control, compaction, or trench jetting.

11. The Susanville City Council may tier water rates to discourage excessive use of water and penalize water customers who fail to meet minimum 25% - 40% reduction.

4) Exceptions, Variances and Appeals

For hardship cases only, variances may be granted for any of the above regulations upon application in writing, stating in detail, the circumstances warranting special consideration. Appeals of decisions made by the City of Susanville may be taken to the City Council by written request. It must be recognized that due to the water shortage emergency, the City of Susanville has very limited ability to grant exceptions and/or variances to this water conservation/rationing plan, especially in Stage Two and Three.

5) Estimate of Minimum Supply for Next Three Years

The total flow for the City of Susanville should not decrease when considering three drought years. The limited use of the underground aquifer can be used more in the event the springs reduce in flow. The aquifer has not changed in level in several years. The demand in the area is not likely to change that. The only minimum supply that may change would be that of the springs which are more dependant on annual rain fall.

Table 5-1: Estimated Minimum Supply for Next Three Years

	Average Year	Year 1	Year 2	Year 3
Cady Springs (MG)	478.82	469.25	459.86	450.66
Bagwell Springs (MG)	420.48	412.07	403.83	395.75
Bunyan Well & Pumping Plant #1 (MG)	48.36	47.39	46.44	45.51
Well & Pumping Plant #3 (MG)	79.89	78.29	76.73	75.19
Well & Pumping Plant #4 (MG)	10.51	10.30	10.10	9.89
Well & Pumping Plant #5 (MG)	10.51	10.30	10.10	9.89
Total Water Use (MG)	1048.57	1027.60	1007.05	986.91
% of Normal	100%	98%	96%	94%

Appendix A

Area Map

AREA MAP


OREGON
NORTH
REDDING
SUSANVILLE
SACRAMENTO
SAN FRANCISCO
CALIFORNIA
NEVADA
PACIFIC OCEAN
LOS ANGELES
ARIZONA
SAN DIEGO
MEXICO

Appendix B

Water Supply Locations


N
S
Bagwell Springs
Well #4
Well #5
Cady Springs
Well #1
Well #3
Legend
Water Springs
Water Wells
CityStreets
0
0.3
0.6
1.2 Miles

Appendix C

Water Rate Ordinance

AGENDA ITEM NO._____

Reviewed by:
_____ City Administrator
_____ Finance Director
_____ City Attorney

___ Motion only
_X_ Public Hearing
_X_ Resolution
___ Ordinance
___ Information

Submitted by: Craig C. Platt, Public Works Director

Action Date: July 2, 2008

CITY COUNCIL AGENDA ITEM

SUBJECT: Public Hearing to consider Resolution Number 08-4384 amending Resolution Number 05-3914 setting fees and policies for utilities of the City of Susanville

PRESENTED BY: Craig C. Platt, Public Works Director

SUMMARY: At it's May 21, 2008 meeting, the City Council considered staff's request to increase the water meter monthly minimum service charge or base and to increase actual water usage fees by developing a rate structure that increases as more water is used. Staff is requesting this increase for the 2008-2009 fiscal budget year in order to give the City the ability to begin building cash reserves to start the necessary replacement of aging water meters, water mains, and water service lines to meet current and future needs.

FISCAL IMPACT: Estimated $380,000 + / - increase in revenue to water fund 7110.

ACTION REQUESTED:

1. Open public hearing and take comments regarding water rate increase proposed for FY 2008-2009
2. Close public hearing
3. Waive first reading and

ATTACHMENTS: Resolution Number 08-4384
Public Hearing Notice

RESOLUTION NUMBER 08-4384

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUSANVILLE AMENDING RESOLUTION 05-3914, SETTING FEES AND POLICIES FOR THE WATER UTILITY OF THE CITY OF SUSANVILLE

WHEREAS, the City Council of the City of Susanville has established a water utility; and

WHEREAS, the City Council of the City of Susanville has heretofore established various rates, fees, charges and policies for the water utility; and

WHEREAS, pursuant to the provisions of the California Constitution and the laws of the State of California, the City of Susanville is authorized to adopt and implement rates, fees and charges for municipal utilities, provided however, that such rates, fees and charges do not exceed the estimated reasonable cost of providing such services; and

WHEREAS, California Government Code Section 66016 requires notice to be given and data made available at specified times prior to the adoption of increases in existing rates, fees and charges, or the adoption of new rates, fees and charges for certain of the categories of rates, fees and charges addressed herein at a public meeting of the City Council; and

WHEREAS, California Government Code Section 66018 requires notice be published in accordance with California Government Code Section 6062a and data made available concerning rates, fees and charges prior to conducting a public hearing with respect to the adoption of increases in certain rates, fees and charges, or the adoption of certain new rates, fees and charges for which no other procedure is provided by law: and

WHEREAS, pursuant to California Government Code Section 66018, this City Council has held at least one public meeting and received oral and written presentation thereat with respect to "user fees" prior to the adoption of this Resolution; and

WHEREAS, pursuant to California Government Code Section 66018, this City Council has conducted and concluded a public hearing with respect to the rates, fees and charges prior to adoption of this Resolution; and

WHEREAS, the City Council desires to adjust the rates, fees and charges and implement new rates, fees and charges for the municipal water services provided by the City of Susanville, as set forth herein; and

WHEREAS, it is the intention of the City of Susanville that all revenues generated by the increase in rates shall be held and accounted for in and as a restricted fund to be released only for the repair of the existing municipal water system including design, engineering and construction as necessary and only upon project approval by the city council;

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE BE IT RESOLVED:

1. This City Council hereby finds and determines that based upon the data, information, analysis, oral and written documentation presented to this City Council concerning the rates, fees and charges described below do not exceed the established reasonable cost of providing the service for which the rates, fees, or charges are levied.

2. The rates, fees and charges set forth below, are hereby adopted and approved as the rates, fees and charges for the services identified for each such rate, fee and/or charge and shall be effective and shall be implemented commencing August 1, 2008.

3. Immediately upon the effective date of the rates, fees and charges set forth herein, any previously established rates, fees and/or charges shall be, and the same are hereby superseded by the rates, fees and charges established herein.

4. Rates, fees and charges:

Water Base Charge: The minimum monthly base charge for all metered services by size is indicated in the following table:

Meter Size	Base Charges	New Fees
5/8 X 3/4 inch	$ 18.20	$ 23.65
1 inch	$ 26.39	$ 31.93
1-1/2 inch	$ 34.38	$ 41.60
2 inch	$ 44.72	$ 54.11
3 inch	$ 72.23	$ 81.37
4 inch	$103.17	$124.84
6 inch	$179.56	$217.27
8 inch	$239.41	$289.69
10 inch	$299.26	$362.10

Base Rates: For each user regardless of meter size serving the customer, the monthly minimum base rate is **$23.65.**

Quantity Rates: Quantity rates are those monthly rates for water supplied through the meter are as follows:

000 - 300 the first 300 cubic feet of water have been included in the base fee

300 - 1500 $1.245 per hundred cubic feet for the next twelve hundred cubic feet

1500 - 4000 $1.365 per one hundred cubic feet for any use in excess of the first fifteen hundred cubic feet through four thousand cubic feet

4000 - 6500 $1.485 per one hundred cubic feet for any use in excess of the first four thousand cubic feet through six thousand five hundred cubic feet

6500 - 10,000 $1.565 per one hundred cubic feet for any use in excess of the sixty five hundred cubic feet through ten thousand cubic feet

10,000 up $1.645 per one hundred cubic feet for any use in excess of ten thousand cubic feet

CONNECTION FEES: Where there is not presently a service or when it is necessary to install a new service the following connection fees shall apply:

Water		Fees	New Fees
A.	Residential Connection Fees (Single Family Unit, Each Apartment Unit, Each Motel Unit)	$885.00	$997.00

B. Commercial Connection fee Determined from water consumption report on basis of equivalent single family, residential connection fees

WATER SOURCE AND STORAGE CAPACITY FEES:

	Fees	New Fees
A. Source Fee -		
-Single- Family Residential Unit	$ 619.00	$ 697.00
-Multi-Family Residential Unit	$ 455.00	$ 513.00
-Commercial / Industrial (Per Acre)	$ 814.00	$ 917.00
B. Storage Fee		
-Single- Family Residential Unit	$ 925.00	$1042.00
-Multi- Family Residential Unit	$ 612.00	$ 689.00
-Commercial / Industrial (Per Acre)	$3232.00	$3641.00

SERVICE ESTABLISHMENT FEES: A service establishment fee shall be charged for the establishment of service and must be paid prior to activation of the meter.

		Fees
1.	Water	$10.00
2.	Natural Gas	$10.00
3.	Geothermal	$10.00
4.	Two or more at one time	$15.00
5.	Establishment fee is waived for property managers, landlords, etc. who have an agreement with the City for assuming services upon vacancy	

OTHER FEES:

		Fees
1.	Restoration of Service - Single Service	$ 36.00
	- Multiple Services	$ 45.00
2.	Restoration of Meter - Single Meter after hours	$ 71.00
	(After 3:30 pm) - Multiple Services after hours	$ 101.00
3.	Meter Testing - Deposit	$ 51.00
4.	Meter Tampering Charge (criminal charges may be filed)	$ 301.00
5.	Back Flow Prevention Devices	Actual Cost
6.	Construction Hydrant Meter (Deposit)	$1000.00
7.	Inspections (cross connections)	$ 94.00

WATER SERVICE LINE INSTALLATION:

The customer shall pay for all costs of the water service installation including, but not limited to the pipe, service tap, meter box, meter valves, hydrants, labor, trenching, backfilling, patching and administrative costs from the nearest main to the customer=s property line in accordance with City standards and specifications. The applicant may have the City Water Division personnel install the service line based on the fee schedule set forth, or may elect to hire a qualified contractor to perform this work, except that only City Water Division personnel may make the water main tap and install the water meter.

Fee Schedule	3/4"	1"1-1/2"	2"	Over 2"	
New Service Fees	$1400	$1400	$1790	$2070	Actual Cost
New Meter Fees	$ 134	$ 173	$ 295	$ 380	Actual Cost
New Meter (Location) Fees	$ 850	$1100	$1700	$1950	Actual Cost
Remove Service Fees	$ 400	$ 400	$ 450	$ 450	Actual Cost
Water Main Taps Fees	$ 140	$ 155	$ 180	$ 255	$ 475

CONSTRUCTION WATER:

		Fees
Fire Hydrant Use Deposit - No Meter	$ 500	$ 84.00 Application Fee Non-Refundable

Hydrant Meter Deposit For construction water taken through a hydrant meter the rate shall be $85.50 per 1000 cubic feet of water or $8.50 per 100 cubic feet	$1000
Hydrant Meter Monthly Fee	$ 25

WELLS AND VERTICAL DRILLING:
Wells For Water, Geo, Monitoring, Testing And Heating/Cooling Systems

	Fees
Application Fee	$145
Inspection Fee	$ 92

5. If any section, subsection, sentence, clause or phrase of this resolution is, for any reason, held to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the validity or constitutionality of the resolution and each section, subsection, clause and phrase hereof would have been prepared, proposed, adopted, approved and ratified irrespective of the fact that any one or more other sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

6. Revenues generated by this increase in rates (that is, the marginal difference between current and new increased rates) shall be held in a restricted fund that is to be reported and accounted for as restricted, to be released only for use in the repair of the existing municipal water system including, but not limited to, the design, engineering and construction as necessary in connection with repairs to the system and only upon project approval by the City Council of the City of Susanville. Such restriction regarding this fund so created shall remain in place unless modified, amended or removed after a public hearing, legally noticed and only upon a 4/5 vote of the Council in favor of such modification, amendment or removal.

7. The City Clerk shall certify to the adoption of this Resolution.

APPROVED: _____
Kurt Bonham, Mayor

ATTEST: _____
Debra M. Magginetti, CMC/City Clerk

The foregoing Resolution 08-4384 was adopted at a regular meeting of the City Council of the City of Susanville, held on the 2nd day of July, 2008, by the following vote:

AYES:	Sayers, Templeton, Franco, Callegari and Bonham
NOES:	None
ABSENT:	None
ABSTAINING:	None

Debra M. Magginetti, CMC/City Clerk

APPROVED AS TO FORM:

Peter M. Talia, City Attorney

RESOLUTION 08-4384
PUBLIC HEARING NOTICE

The City of Susanville will hold a public hearing to solicit comments on proposed Resolution No. 08-4384, amending Resolution No. 05-3914, setting rates for the water utility.

The public hearing will be held on Wednesday, July 2, 2008 at 7:00 p.m. (or as soon thereafter as the agenda permits) in the City Council Chambers, 66 North Lassen Street, Susanville. The public is invited to attend and provide oral and/or written comments. Written comments must be received at 66 North Lassen Street, Susanville, CA 96130-3904 at, or prior, to the meeting time and date. During the public hearing the City Council shall hear and consider all objections, if any, to the proposed rates.

As required by California Government Code Section 66016, public data indicating the amount of cost, or estimated cost required to provide the service for which the rates or charge is levied and the revenue sources anticipated to provide the service, will be available at City Hall as of June 19, 2008. A copy of the proposed Resolution will also be available at City Hall as of June 19, 2008. Any questions regarding the proposed fees and policies may be directed to the Public Works Department at (530) 257-1041. The amount of the rate or charge cannot exceed the estimated amount to provide the service.

For the City Council of the City of Susanville by: Debra M. Magginetti, City Clerk

Appendix D

Lahontan Basins Integrated Regional Water Management Program

Lahontan Basins Integrated Regional Water Management Program

Submittal for Regional Acceptance Process

April 4, 2011

1) Submitting Entity

The County of Lassen will be the submitting agency. Attached is a resolution (Attachment A) from the Board of Supervisors authorizing the submission of this Regional Acceptance Process (RAP).

The contacts for this submittal are:

David Lile
707 Nevada St
Susanville, CA 96130
530-251-8133
dflile@ucdavis.edu

Gaylon Norwood
707 Nevada St
Susanville, CA 96130
530-251-8269
gnorwood@co.lassen.ca.us

Lassen County has taken an active and leading role in several aspects of water and watershed management. The County has been a long-time participant in the Pine Creek/Eagle Lake Coordinated Resource Management Plan (CRMP) and the Eagle Lake Inter-Agency Board. It has developed and adopted the Lassen County Groundwater Management Plan, is a signatory to the Susan River Watershed Management Memorandum of Understanding, and has worked closely with the Honey Lake Valley Resource Conservation District, Natural Resources Conservation Service, Bureau of Land Management, US Forest Service, California Department of Fish and Game as well as local agricultural and conservation organizations on water related issues.

The County continues in a leading role in groundwater management and is currently engaged in facilitating a process for developing basin management objectives for groundwater. As a leading or supporting partner on a variety of water management issues, Lassen County stands as the logical choice to submit this proposal and to provide leadership for the IRWM process. The Integrated Regional Water Management Memorandum of Understanding (IRWM MOU) is attached as Attachment B. The IRWM MOU stipulates the approval and support of the Regional Water Management Group (RWMG) for Lassen County to be the submitting agency for this RAP.

2) Regional Water Management Group

The proposed membership of the RWMG includes the local agencies that are signatories to the IRWM MOU. Specifically, this includes Lassen County, Honey Lake Valley Resource Conservation District, the City of Susanville and Lassen Irrigation Company. Collectively, these agencies are actively involved in water management including groundwater management, storm and flood water control, irrigation water management and distribution, water quality, aquatic habitat, water conservation and recreation. The current make-up of the RWMG is appropriate as these agencies and local governments not only have authority over water but comprise the foundation of active regional leadership in water and watershed management. These local agencies are linked to a broad network of stakeholder agencies and interested public. Each of the proposed members has expressed clear support for moving forward with the IRWM process including the development of an IRWM plan.

The core local agencies comprising the RWMG work in close collaboration with numerous other agencies, non-governmental organizations and private stakeholders addressing water management related issues throughout the region. The web of collaboration extends primarily via the Pine Creek/Eagle Lake CRMP, the Susan River Watershed Group and the Lassen County Groundwater Management Plan. Group governance and relationships with stakeholder agencies and individuals are described in more detail in subsequent sections. The main point is that a fairly small and focused RWMG represents broad communication and collaboration with stakeholders and the public.

The main difference between the RWMG and stakeholder groups will be the respective roles in the decision making process. Stakeholders will continue to work at the ground level providing technical expertise and helping develop watershed or sub-watershed scale plans and project priorities. The RWMG will be the umbrella over such groups and provide oversight of the IRWM process for the Region as a whole.

Local Agencies with Statuatory Water Authority

Agency	Nature and Description of Statutory Authority
Lassen County	Operates under the California Water Code to adopt and implement a Groundwater Management Plan. By Ordinance requires permit and inspection for well and sewage treatment, road and drainage maintenance, exportation of groundwater, flood control and prevention, and numerous other authorities described sections of the California Government Code and Water Code.

Honey Lake Valley RCD	Operates as the court appointed watermaster for the Susan River and Baxter Creek Decrees. California Water Code authorizes the appointment of a local agency to act as watermaster to assure equitable distribution of water to right holders as described by decree
Lassen Irrigation Company	Under authority granted by the California Water Code and Susan River Decree, the private water company regulates flow and distribution of irrigation water in Susan River and the McCoy, Hog Flat, and Leavitt Lake reservoir system
City of Susanville	Operates under the California Water Code to adopt and implement an Urban Water Plan. By ordinance requires permits and inspections for wells, street and storm drain maintenance and installation, flood control and prevention. Operates the municipal water system for the city of Susanville and surrounding area by maintaining water supply and distribution facilities.
Sierra County	Similar authority as Lassen County

3) Stakeholder Inclusiveness

A broad, current list of potential stakeholders for the IRWM is available from the current watershed and water management efforts on-going within the region. This list can be augmented by cross referencing additional lists encompassing the Madeline Plains and Long Valley Creek. Via public meetings, local media, and local community networks, additional stakeholders will be identified.

Outreach to stakeholders has been and will primarily be via public meetings of established watershed groups, individual stakeholders meetings (e.g. local Farm Bureau meetings), extension education and outreach meetings, and establishment of an IRWM website. Current mailing and contact lists of stakeholders and interested publics have been generated by the on-going watershed management groups that have been and continue to operate in the region. This ensures wide and well distributed outreach of information to a diverse clientele group. There is a strong culture of self-reliance and self-governance in the community so active participation in water and resource management issues is not new or foreign to Lassen County residents.

The Susanville Indian Rancheria (SIR) is the predominant Native American Tribe in the proposed region and is an active participant in watershed planning and management, particularly within the Eagle Lake and Susan River watersheds. The local agencies that comprise the RWMG have a good working relationship with SIR and will continue to cultivate that relationship as part of the IRWM process.

The potential roles in an IRWM process provided by the stakeholder groups are quite varied. The composition of the stakeholders provides the IRWM process both strong technical expertise as well as a wide range of perspectives including tribal, conservation, agricultural, municipal, waste water treatment, and land management interests.

Stakeholder List

Susan River Watermaster Advisory Committee
Susanville Indian Rancheria
Lassen County Farm Bureau
Lassen County Cattlemen's Association
Lassen Land and Trails Trust
Lassen Special Weed Action Team
Susan River Watershed Group
Pine Creek Coordinated Resource Management Plan
Lassen Ground Water Advisory Committee
Community Service Districts
- Spalding
- Stones Landing
- Lake Forest
- Herlong Public Utilities District

US Forest Service, Lassen National Forest
Bureau of Land Management, Eagle Lake Field Office
Natural Resources Conservation Service, Susanville Field Office
California Department Fish and Game
California Department Water Resources
Lahontan Regional Water Quality Control Board
UC Cooperative Extension, Lassen County
Lassen County Department of Planning and Building Services
Susanville Sanitary District
Sierra Nevada Conservancy

4) Public Involvement

The primary vehicle for public involvement will be through existing groups and stakeholders engaged in water management. To ensure wide distribution of information and solicitation of input, other means of public involvement will be used including the following:

a. Direct contact of existing watershed groups and known stakeholders
b. Local media, Lassen County Times and KSUE
c. Public meetings, as appropriate including Lassen County Board of Supervisors, Susanville City Council, Honey Lake Valley RCD Board of Directors, etc.
d. Creation and management of an IRWMP website to post meeting information link to UCCE website http://celassen.ucdavis.edu/Farm_Advisor/Integrated_Water_Plan/

e. Use of stakeholder groups and agencies as a broad network of information dissemination

5) Governance

The proposed membership of the RWMG includes the local agencies with statutory authority that are signatories to the IRWM MOU. The decision making process will be by consensus of the RWMG. Consensus based decision making is favored at the onset of the IRWM process because it has proven effective for the existing watershed and groundwater management groups within the region. Furthermore, RWMG's in adjacent regions comprised of similar rural communities have reported success using the consensus process. In developing this proposal, the RWMG and stakeholders groups agreed that maintaining a consensus based process will likely be the most effective form of decision making, but it is understood that the group will maintain ability develop a more formal and rigid decision making process if deemed necessary in the future.

The primary order of business for the RWMG will be development of an IRWM Plan. During the development of the plan, there will be a need for regular (monthly or bi-monthly) meetings to maintain a steady transfer of information and group momentum necessary for the completion of the plan. The RWMG and stakeholders have indicated a willingness to engage in this planning process.

Once the IRWM Plan is in place and adopted, the RWMG will operate as an umbrella group helping to coordinate and integrate water management issues and priorities, rather than developing site-specific plans and projects duplicative of the sub-regional watershed groups already well established. This broader scale integration is in fact the stated purpose of the IRWM program and as such will require a somewhat different perspective from local participants than current watershed efforts. The RWMG will meet at least biannually and likely more often to review major watershed funding opportunities, discuss/review current or emerging water management issues, and to make recommendations as needed to water management agencies or planning groups.

Effective and open collaboration of the RWMG with stakeholders and interested public will be an important aspect to the overall governance of the RWMG. It will be important to have multiple avenues of public involvement into the RWMG:

- A primary means for stakeholder involvement will be via existing sub-regional watershed and water management groups, including but not limited to

representatives from the Eagle Lake Basin, Susan River watershed, groundwater management basins, as well as other agencies and local districts.

- Local governments and districts are integral to the RWMG and as such have processes in place to directly and indirectly inform their public constituents.

- Public meetings and use of local media to inform stakeholders of meeting schedules and water issues.

- The UC Cooperative Extension office has established an IRWM webpage to help disseminate information among RWMG members, stakeholders and interested public. Current information, meetings times and subsequent meeting notes will be posted.

Changes in RWMG Membership

The process to establish an RWMG should recognize the potential for changes in priorities, needs, issues, workforce, etc., that can occur over time and necessitate changes in group membership. For example, additional members may be added to the RWMG particularly in instances such as: 1) when water issues arise outside the expertise and authority of group members, or 2) when new and emerging issues in a specific geographic area are not adequately represented in the current structure. The current MOU is structured so that at such time an amended or new MOU could be developed to reflect a change in membership.

6) **Region** - The regional boundary is defined by the maps included as Attachment C. The geographic region for this RAP includes the Susan River watershed, Eagle Lake Basin, Madeline Plains, the Smoke Creek watershed adjacent to the Nevada state line, Long Valley Creek watershed, and additional tributaries to Honey Lake in the Janesville/Milford area such as Baxter Creek, Parker Creek among others.

   Typical of the Great Basin geography, the proposed IRWM is hydrologically unique in that it is comprised of for distinct watersheds/closed basins (Eagle Lake, Honey Lake Madeline Plains and Smoke Creek). Yet, in terms of effective resource management, community involvement and culture, this area is best managed as a single IRWM region. Within the defined region there are similarities in the resources issues and the individuals, communities, resource agencies and organizations have a history of working and interacting with each other. The entire boundary falls within the area of Lahontan Regional Water Quality Control Board and mostly with Lassen County. There are some jurisdictional distinctions, but the primary basis for the proposed regional boundary has more to do with

a workable area, and watersheds with common communities, similar resources, and cultures. Basically, there are many more commonalities within this region than differences.

The boundary has been discussed at multiple venues including Susan River watershed meetings, Board of Supervisors meetings, and Pine Creek CRMP meetings. The consensus drawn from these discussions along with input from Regional Water Quality Control Board and Department of Water Resources staff, resulted in the selection of the current boundary.

7) History Water Resources Management in Area

There is a long and colorful history of water use and management in Lassen County. Given the relative scarcity of water and its value as the life blood of the area's agriculture, as well as recreational and cultural values, there has been much focus on water management among local government, agencies, and water users. A partial list of current watershed planning, management and assessment documents is attached below as Attachment D.

The following section provides a brief description of current and historical water management issues for the four sub-watersheds within the defined IRWM, including Susan River, Eagle Lake, Long Valley Creek and Madeline Plains.

Susan River

Irrigation of crops from water diverted from the Susan River dates back well over 100 years. The 1915 Honey Lake Valley Soil Survey describes wild flood irrigation practices in the Honey Lake Valley for crops such as alfalfa and pasture.

Water supply in the Susan River system including water diverted for storage by Lassen Irrigation Company is dependent primarily on winter snowpack and spring run-off conditions. Much of the agricultural lands in the valleys receive only 12" or less of annual precipitation primarily in winter months. Available water in the soil profile from natural precipitation is quickly depleted, and therefore irrigation is critical for summer crop production.

Irrigation in the region is provided by a combination of surface and groundwater sources. Surface water irrigation uses natural run-off or river flow as well as water stored in reservoirs.

The Susan River, Baxter Creek and Parker Creek water right decrees were established in 1941 and provide legal guidance for the distribution of surface irrigation water within the Susan River Watershed. There are water right holders for the natural flow of the Susan River as well as the Lassen Irrigation Company which has storage water rights for McCoy Reservoir, Hog Flat Reservoir and Levitt Lake. Approximately 30,000 acres have been appropriated irrigation water rights from the Susan River, including roughly 5,000 acres by shareholders to the Lassen Irrigation Company.

The original Susan River decree created watermaster service to be provided by the Department of Water Resources. In 2007 water users, concerned with the prospects of losing state funding

for the watermaster service and desiring a more local watermaster presence, petitioned the court to have the Honey Lake Valley Resource Conservation District (RCD) appointed as watermaster. This process was completed and the RCD took over for the 2008 irrigation season. A Watermaster Advisory Committee was developed to provide oversight and recommendations to the RCD board for the management of this service.

During dry cycles, the reservoir system and flow of river water for irrigation is inadequate to meet demand. Many farms and ranches rely on groundwater to provide full season irrigation even though pumping groundwater is relatively expensive both in terms of capital improvement and annual pumping costs for the region's forage based cropping systems (primarily hay and pasture). Well data indicates that groundwater recharge has generally been adequate to maintain groundwater aquifers given the current level of use.

Watershed Planning and Management
The Susan River Watershed group was formed in 2010 to address a list of watershed related objectives for the Susan River. Chief amongst these is improved water use efficiency, better irrigation/diversion infrastructure, improved water quality and control of invasive weeds primarily perennial pepperweed (Lepidium latifolium). In May 2011, NRCS is expected to complete a Rapid Watershed Assessment for the Susan River and will initiate a watershed plan, consistent with the IRWM process this year. To date the group has received approximately $1M from the USDA Ag Water Enhancement Program to begin work on irrigation system efficiency, reduce invasive weeds and create riparian filter strips.

Water quality
The Susan River and Honey Lake appear on the Lahontan RWQCB's 303(d) list as being impaired by salinity and the presence of metals. Assessments from NRCS indicate a prevalence of incised channels, sediment deposition, inefficient water diversion and delivery systems and heavy weed encroachment. Surface water users in the lower reaches report relatively high salt content likely accumulated in the tail-water of other fields.

Flooding Damage Storm Water Management
Despite the dry weather patterns in recent years, flood and storm water concerns are not uncommon on the Susan River and nearby watersheds Damage assessments and project reports associated with flood events in the mid 1990's indicate damage primarily associated with inadequate road and highway culverts, stream bank instability and impacts to farm land, and some channel instability near residential structures adjacent to the Susan River in Susanville.

Recreation
The Susan River is popular among locals for angling, with features such as Susanville's Junior Fishing Derby and a zero-limit wild trout section. There are also popular walking/biking trails, summer tubing, swimming and potential white-water sports.

Eagle Lake Basin

Eagle Lake is a large highly alkaline lake similar in many ways to other high desert lakes found in the Great Basin. It is unique in the sense that it provides the native habitat for the Eagle Lake rainbow trout. This trout is widely used for stocking in the Sierras and northern California, but nowhere is it more sought after than in its native waters of Eagle Lake. Due in part to it restricted native range and in part to very limited natural spawning the Eagle Lake rainbow trout has twice been petitioned for listing under the Endangered Species Act.

The Pine Creek Coordinated Resource Management Planning group (CRMP) was established in 1987 and has worked in a collaborative fashion since that time to improve riparian habitat, water quality and fish passage to spawning reaches in upper Pine Creek. Eagle Lake is listed as impaired (Lahontan RWQCB 303(d) list) due to nutrients including nitrogen and phosphorous. One of the long-term objectives of the CRMP has been to reduce the inflow of nutrients into the lake.

During the recent dry cycle, the lake level of Eagle Lake has been reduced which further raises concerns regarding increased alkalinity and effects on Eagle Lake trout and other aquatic species. Low water levels have also reduced recreational opportunities and restricted lake access at some boat ramps. A number of stakeholders have raised concerns about the Bly Tunnel which was constructed in the 1920's and 30's to provide irrigation water to Honey Lake. The irrigation project failed and there have been subsequent projects to plug the tunnel entrance to Eagle Lake. Currently water exits the tunnel through an eight-inch pipe installed for the purpose of out-letting subsurface flows that accumulate within the tunnel. It should be noted that during wet cycles of the 1980's some stakeholders called for opening the Bly Tunnel to prevent flooding of lake-side infrastructure.

There is also increasing interest in assessing whether watershed conditions, particularly forest management may be affecting snow pack accumulation and water yield within the Eagle Lake basin.

Long Valley Creek

Long Valley Creek stretches for nearly 40 miles running from south to north before draining into the southeastern quadrant of Honey Lake. Average stream flow peaks in March at about 35cfs dwindling to only a trickle in mid to late summer. Long Valley Creek has adjudicated water rights providing early season irrigation water. Long Valley Creek provides stock water and wildlife habitat for much of its length. The recharge and management of groundwater is of great interest in this watershed due to some extent to the proximity to the Nevada state line and potential groundwater export to Reno and surrounding area.

Madeline Plains

The Madeline Plains are high elevation, extremely rural characterized by farming and ranching on the better valley soils especially where irrigation water is available. Surrounding and

interspersed with farmland are vast acreages of sagebrush rangeland. Forage crops such as alfalfa and pasture are predominant among farming enterprises. Several reservoirs capturing snow-melt runoff in the mountains east of the plains provide summer irrigation. A few of these reservoirs such as Dodge and Buckhorn also provide fishing and other recreation value. Groundwater is also a substantial source of irrigation water and as such groundwater recharge and management are important issues in this basin.

Lassen County Groundwater Plan

In 2007 the Lassen County Board of Supervisors adopted a county-wide groundwater management plan for the purpose of guiding the management of the county's groundwater resources and to provide a framework for development of Basin Management Objectives effective local policy. The plan developed in close association with a Board-appointed Groundwater Advisory Committee of local water users and stakeholders, provides detailed descriptions of groundwater resources, current uses and groundwater hydrographs created by the Department of Water Resources.

In 2010 the county initiated a new program for the development of Basin Management Objectives (BMO) as described in the county's plan. Twelve groundwater basins and sub-basins have been identified to implement the BMO process in 2011. The county and committee understand that the integration of surface and ground water management will be critical to effective long-term management. And furthermore in 2010, Lassen County identified itself as the local groundwater monitoring authority under Section 10927 of the California Water Code.

8) Interregional Coordination. There are no known overlapping areas with adjacent IRWM regions. There will be coordination with the Upper Pit IRWM particularly with regard to groundwater planning, management and monitoring. Also, due to the geographic proximity and similarity in resource issues, there is a history of coordination of education and outreach efforts with members of both the Upper Feather and Upper Pit River IRWMs. We expect communication with those groups to continue and, in fact, to likely be enhanced by the formation of the Lahontan Basins IRWM.

Attachments

Attachment A

Lassen County Board of Supervisors Resolution (following)

RESOLUTION NO. 11-013

RESOLUTION OF THE LASSEN COUNTY BOARD OF SUPERVISORS TO AUTHORIZE THE SUBMITTAL OF A "REGION ACCEPTANCE PROCESS" (RAP) TO THE DEPARTMENT OF WATER RESOURCES.

WHEREAS, Lassen County has a long history of success in collaborative water resource management amongst local, state, and federal agencies, tribes, non-governmental organizations, and a diverse collection of stakeholders; and

WHEREAS, on March 13, 2007, Lassen County Board of Supervisors adopted the "Lassen County Groundwater Management Plan;" and

WHEREAS, Lassen County was awarded $250,000 by the Department of Water Resources (DWR) for the development of Basin Management Objectives (BMOs) for twelve priority groundwater basins identified in the Groundwater Management Plan and is actively engaged in said planning process; and

WHEREAS, on March 16, 2011, a MOU, titled "Memorandum of Understanding Collaboration for Lassen Integrated Regional Water Resources" was adopted by the County of Lassen, City of Susanville, Honey Lake Valley Resource Conservation District, and Lassen Irrigation Company to facilitate Lassen County's submittal of a RAP to the DWR; and

WHEREAS, said MOU provides support for Lassen County's facilitation for the development of a Regional Water Management Group; and

WHEREAS, signatories to the MOU comprise the current "Regional Water Management Group" (RWMG).

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The foregoing recitals are true and correct.

2. The attached document is authorized to be submitted to under the Region Acceptance Process to the Department of Water Resources.

Resolution NO. 11-013

The foregoing resolution was adopted at a regular meeting of the Lassen County Board of Supervisors of the County of Lassen, State of California, held on the 12th day of April, 2011 by the following vote:

AYES: Supervisors Chapman, Pyle, Wosick, Dahle and Hanson

NOES: None

ABSTAIN: None

ABSENT: None

Chairman of the Board of Supervisors
County of Lassen, State of California

ATTEST:
JULIE BUSTAMANTE
Clerk of the Board
BY _____
SUSAN OSGOOD, Deputy Clerk of the Board

I, SUSAN OSGOOD, Deputy Clerk of the Board of the Board of Supervisors, County of Lassen, do hereby certify that the foregoing resolution was adopted by the said Board of Supervisors at a regular meeting thereof held on the 12th day of April, 2011

Deputy Clerk of the County of Lassen Board of Supervisors

Attachment B

IRWM Memorandum of Understanding (following)

Memorandum of Understanding
Collaboration for Lassen Integrated Regional Water Resources

1. BACKGROUND

Based on common interests and values of water resources, local managers and policy makers believe that coordination and collaboration between stakeholders and agencies will result in better understanding and management of surface and groundwater resources. The proposed mechanism for such collaboration is the development of an Integrated Regional Water Management Plan. For the purpose of this MOU, the "region" includes the Honey Lake Basin including Susan River, Long Valley Creek, and other tributaries, the Eagle Lake Basin, and the Madeline Plains. Said Region is delineated on the graphic included as Exhibit A.

2. PURPOSE

The purpose of this document is to establish a mutual understanding among the participants respective to voluntary efforts promoting local and regional collaboration that will be developed as part of an Integrated Regional Water Management Plan for the areas described above.

3. GOALS

The goals of this Memorandum of Understanding (MOU) are:

3.1. To foster collaboration between major water management agencies and stakeholders on water-related issues, to improve management and enhance public use and conservation of water resources.

3.2. To improve competitiveness for State and Federal grant funding.

3.3. To provide a framework for developing priorities for funding associated with activities pursued under this MOU.

4. MUTUAL UNDERSTANDINGS

4.1. Participation. Signatories to this MOU constitute the current participants in developing an Integrated Regional Water Management Plan. Participation is strictly on a voluntary basis and may be terminated at any time without cause or recourse. Signatories aspire to work collaboratively with other regional programs and technical outreach efforts. Parties hereto will provide all other parties with 30 days written notice of their intention to withdraw from participation or this MOU

4.2. Activities. Efforts pursued under this agreement will remain consistent with and will not exceed the current authority for any individual participant. Efforts will include the study and investigation of water resources common to participants, monitoring and reporting, information dissemination and sharing between agencies and organizations, public outreach and education, and other activities at the agreement and direction of the participants.

4.3. Funding. Participants are not required to commit funding associated with activities completed under this MOU. It is understood that activities under this MOU may result in the more efficient use of existing and future funding resulting from improved collaboration and coordination.

4.4. External Funding. Signatories will work collaboratively in pursuit of external funding such as state and federal grants associated with common interest and based on voluntary participation and agreement. Nothing in this MOU precludes individual parties from the individual pursuit, contracting and completion of work from an externally funded source regardless of a real or perceived regional interest.

4.5. Decision-making. Consensus will be sought when the need for a decision arises.

4.6. Region Acceptance Process (RAP) Submittal. The participants support Lassen County's submittal of a RAP under the Integrated Regional Water Management Program.

4.7. Regional Water Management Group. The participants support Lassen County facilitating the establishment of the Regional Water Management Group.

4.8. Non-binding nature. This document and participation under this MOU are nonbinding, and in no way suggest that a party hereto may not continue its own activities as each party hereto is expected to continue its own policies and procedures and undertake efforts to secure project funding from any source. As set forth above in section 4.1, a party hereto may withdraw from participation at any time.

4.9. Termination. Because the MOU will require periodic review and updating for use into the future, it is envisioned that the joint efforts of those involved will be ongoing in maintaining a living document. Thus this document will remain as a reflection of the understandings of the participants. Individual signatories of this MOU may terminate their involvement at any time without cause or recourse by providing 30 days written notice of same to parties hereto.

5. SIGNATORIES TO THE MEMORANDUM OF UNDERSTANDING

We, the undersigned representatives of our respective agencies, mutually agree to the terms of this MOU.

Dated: March 16, 2011

Jim Chapman, Chairman, Lassen County Board of Supervisors

Attest: Susan Osgood
Susan Osgood, Deputy Clerk of the Board of Supervisors

Honey Lake Valley Resource Conservation District

Attest: Leslie Woods

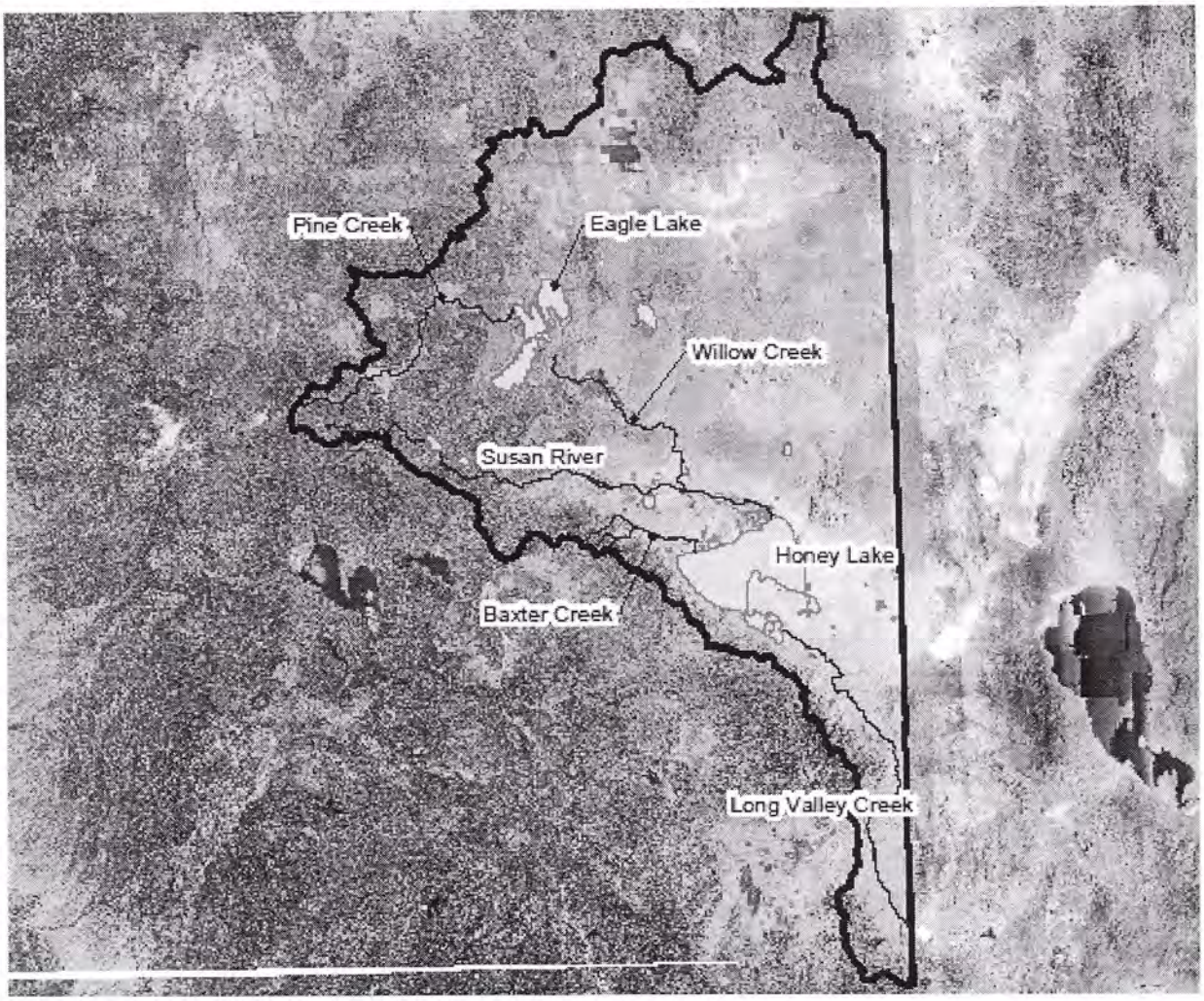
Lassen Irrigation Company

Attest:

City of Susanville

Attest:
Debra Magginetti, City Clerk

Exhibit "A"


Pine Creek
Eagle Lake
Willow Creek
Susan River
Honey Lake
Baxter Creek
Long Valley Creek

RESOLUTION NO. 11-4743
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUSANVILLE APPROVING AND AUTHORIZING MAYOR TO EXECUTE MEMORANDUM OF UNDERSTANDING WITH LASSEN COUNTY, HONEY LAKE VALLEY RESOURCE CONSERVATION DISTRICT AND LASSEN IRRIGATION DISTRICT TO FACILITATE COORDINATION FOR SUBMITTAL OF REGION ACCEPTANCE PROCESS

WHEREAS, submittal of a Region Acceptance Process plan to the Department of Water Resources, which would then provide the basis for the establishment of a Regional Water Management Group, would be a benefit to the community; and

WHEREAS, Lassen County, Honey Lake Valley Resource Conservation District, Lassen Irrigation District and the City of Susanville have collaborated to develop the MOU, attached hereto and incorporated by reference);

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Susanville that the Mayor is authorized to execute the MOU.

APPROVED: _____
Lino P. Callegari, Mayor

ATTEST: _____
Debra M. Magginetti, CMC/City Clerk

The foregoing **Resolution No. 11-4743** was adopted at a regular meeting of the City Council of the City of Susanville held on the 16th day of March, 2011 by the following vote:

AYES:	Franco, McDonald, De Boer and Callegari
NOES:	Sayers
ABSENT:	None
ABSTAINING:	None

_____
Debra M. Magginetti,CMC/City Clerk

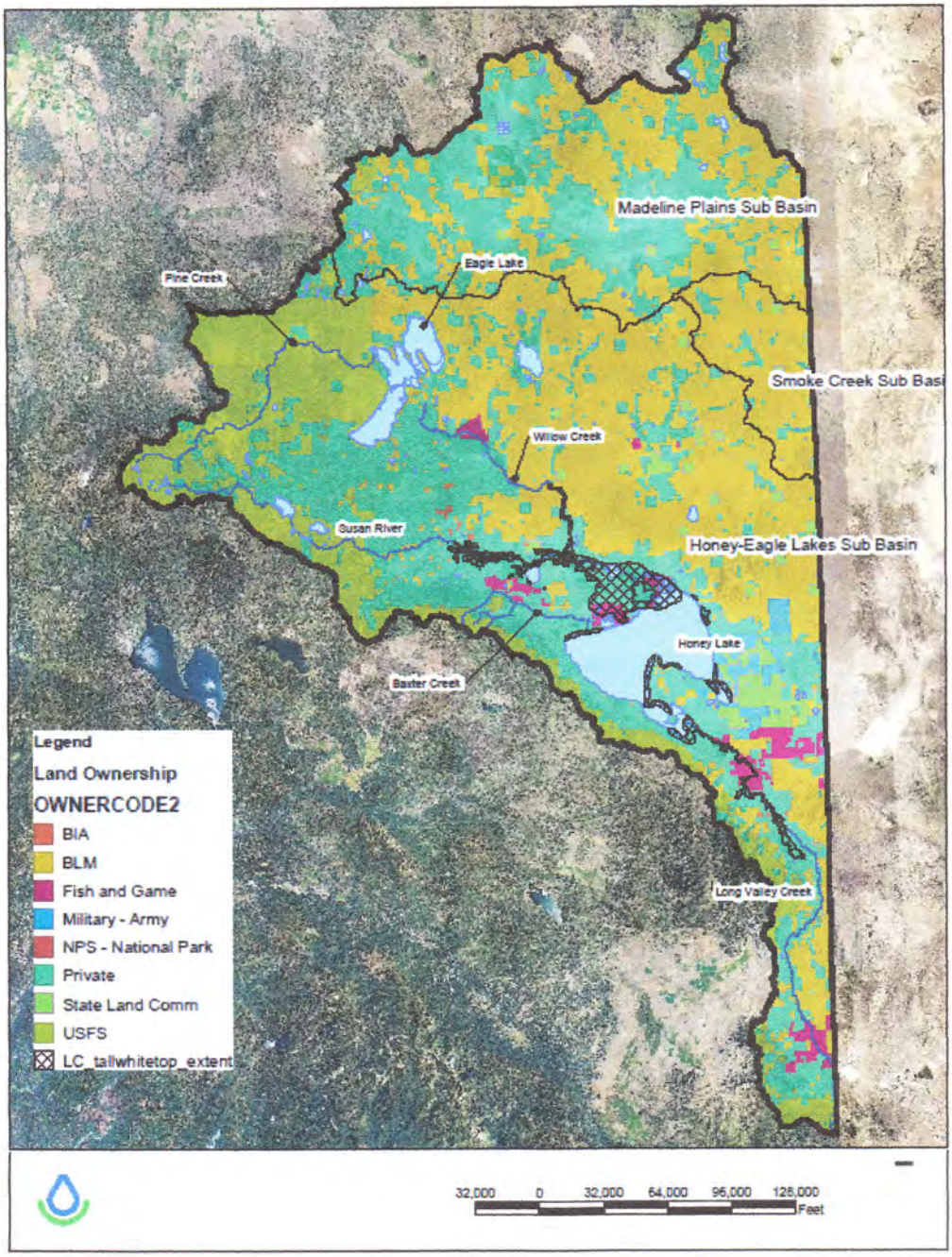
APPROVED AS TO FORM: _____
Peter M. Talia, City Attorney

I, Debra M. Magginetti, the duly appointed, qualified and acting Clerk of the City of Susanville, do hereby certify that the within and foregoing is a full, true and correct copy of **Resolution No. 11-4743,** duly and regularly approved by the City Council of the City of Susanville at a regular meeting thereof held on the 16th day of March, 2011.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the City of Susanville all on the 17th day of March, 2011.

Debra M. Magginetti, CMC/City Clerk

Attachment C - Boundary map and land ownership within the proposed Lahontan Basins IRWM Region



Attachment D

Current Planning Processes and Documents within the Lahontan Basins IRWM

Groundwater
Lassen County Groundwater Management Plan – prepared for Lassen County Board of Supervisors by Brown and Caldwell. Adopted by the Board of Supervisors on March 13, 2007, the plan addresses groundwater management over the entire region.

Long Valley Groundwater Management District

Lassen County Local Groundwater Monitoring Plan -2010

Pine Creek/Eagle Lake Basin
Conservation Strategy for Pine Creek and Eagle Lake Trout – Teresa Pustejovsky. Completed in 2006 describes recent history of conservation practices and habitat and water quality assessments in the Eagle Lake Basin will focus on Eagle Lake trout.

Eagle Lake Fishery Management Plan - California Department of Fish and Game -Michael Dean and Paul Chappell Completed 2005

Susan River/Honey Lake Basin
Susan River Rapid Watershed Assessment - Natural Resources Conservation Service- 2011

Inventory and Assessment of Irrigation Diversion Structures in the Susan River – Natural Resources Conservation Service -2011

Susan River Watershed Plan – Plan initiated and cooperator/stakeholder MOU signed 2010, planned for completion 2012 by the Susan River Watershed Management Group

City of Susanville
Urban Water Management Plan
The City of Susanville, as an urban water supplier, is responsible for preparing and adopting an Urban Water Management Plan (UWMP). The purpose of the UWMP is to describe the service area, forecast future water needs and prepare management strategies to meet the water needs of the community. The City of Susanville serves over 3,400 water connections, the CWC states that any supplier that serves 3,000 or more connections is required to assess the reliability of its water sources over a 20-year planning horizon considering normal, dry, and multiple dry years. This assessment is to be included in its UWMP, which are to be prepared every 5 years and submitted to the Department of Water Resources.

Federally Managed Lands in all Basins
Proposed Resource Management Plan (RMP) and Final EIS – Bureau of Land Management, Eagle Lake Field Office – Completed in 2007. The RMP will guide land use and management for a 15 to 20 year time frame, and an analysis on water resources including effects of the preferred alternative, cumulative land use effects and mitigation measures.

Lassen National Forest Management Direction - The Lassen National Forest Land and Resource Management Plan (LRMP), also known as the Forest Plan, provides direction for planning and conducting resource management activities on National Forest lands within the administrative boundary of the Lassen. The Forest Service has the authority to dictate land use activities on these forest lands consistent with the Forest Plan. The LRMP was formally adopted in 1993 after several years of gathering data and public input.
Preparation of the Forest Plan is required by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1986 (NFMA), and the implementing regulations found in the Code of Federal Regulations (36 CFR 219, issued September 30, 1982).

As scheduled by NFMA, the Forest Plan is scheduled to be revised at least every 10-15 years (considered the planning period) although it can be revised whenever conditions or demands have changed sufficiently to affect the goals or uses for the entire Forest.

Since 1993, the LRMP has been revised numerous times by administrative amendments and/or legislation. These revisions include the following:

- Northwest Forest Plan (1994, 2000, 2001, 2004, 2007)
- Herger-Feinstein Quincy Library Group Forest Recovery Act (1999 and 2003)
- Sierra Nevada Forest Plan Amendment (2001 and 2004)
- Sierra Nevada Forests Management Indicator Species (SNF MIS) Amendment (2007)

Appendix E

Model Water Efficient Landscape Ordinance

City of Susanville

(530) 257-1000 • 66 North Lassen Street • Susanville, CA 96130-3904

February 4, 2010

Mr. Simon Eching
California Department of Water resources
Water Use and Efficiency Branch
P.O. Box 942836
Sacramento, Ca 94236-0001

Re: Model Efficient Landscape Ordinance and AB 1881

Dear Mr. Eching:

The City of Susanville is aware that by not adopting its own local water efficient landscape ordinance that the Model Water Efficient Landscape Ordinance is automatically adopted by statute for our City. We are aware of this and this is what we will follow.

Very truly yours

Rob D. Hill
City Administrator
City of Susanville

Cc: City Attorney
Building Official
Senior Planner
City Engineer

Model Water Efficient Landscape Ordinance
September 10, 2009

Index

California Code of Regulations
Title 23. Waters
Division 2. Department of Water Resources
Chapter 2.7. Model Water Efficient Landscape Ordinance

§ 490. Purpose.

(a) The State Legislature has found:

(1) that the waters of the state are of limited supply and are subject to ever increasing demands;

(2) that the continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future uses;

(3) that it is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;

(4) that landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development; and

(5) that landscape design, installation, maintenance and management can and should be water efficient; and

(6) that Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served and the right does not and shall not extend to waste or unreasonable method of use.

(b) Consistent with these legislative findings, the purpose of this model ordinance is to:

(1) promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible;

(2) establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects;

(3) establish provisions for water management practices and water waste prevention for existing landscapes;

(4) use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount;

(5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies;

(6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered-rate structure; and

(7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

Note: Authority cited: Section 65593, Government Code. Reference: Sections 65591, 65593, 65596, Government Code.

§ 490.1 Applicability

(a) After January 1, 2010, this ordinance shall apply to all of the following landscape projects:

(1) new construction and rehabilitated landscapes for public agency projects and private development projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review;

(2) new construction and rehabilitated landscapes which are developer-installed in single-family and multi-family projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review;

(3) new construction landscapes which are homeowner-provided and/or homeowner-hired in single-family and multi-family residential projects with a total project landscape area equal to or greater than 5,000 square feet requiring a building or landscape permit, plan check or design review;
(4) existing landscapes limited to Sections 493, 493.1 and 493.2; and
(5) cemeteries. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to Sections 492.4, 492.11 and 492.12; and existing cemeteries are limited to Sections 493, 493.1 and 493.2.
(b) This ordinance does not apply to:
(1) registered local, state or federal historical sites;
(2) ecological restoration projects that do not require a permanent irrigation system;
(3) mined-land reclamation projects that do not require a permanent irrigation system; or
(4) plant collections, as part of botanical gardens and arboretums open to the public.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 491. Definitions.
The terms used in this ordinance have the meaning set forth below:
(a) "applied water" means the portion of water supplied by the irrigation system to the landscape.
(b) "automatic irrigation controller" means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.
(c) "backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.
(d) "Certificate of Completion" means the document required under Section 492.9.
(e) "certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.
(f) "certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.
(g) "check valve" or "anti-drain valve" means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.
(h) "common interest developments" means community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.
(i) "conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year
(j) "drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
(k) "ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
(l)"effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.
(m) "emitter" means a drip irrigation emission device that delivers water slowly from the system to the soil.
(n) "established landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

(o) "establishment period of the plants" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.
(p) "Estimated Total Water Use" (ETWU) means the total water used for the landscape as described in Section 492.4.
(q) "ET adjustment factor" (ETAF) means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.
A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is (0.7)=(0.5/0.71). ETAF for a Special Landscape Area shall not exceed 1.0. ETAF for existing non-rehabilitated landscapes is 0.8.
(r) "evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.
(s) "flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.
(t) "hardscapes" means any durable material (pervious and non-pervious).
(u) "homeowner-provided landscaping" means any landscaping either installed by a private individual for a single family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this ordinance, is a person who occupies the dwelling he or she owns. This excludes speculative homes, which are not owner-occupied dwellings.
(v) "hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
(w) "infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).
(x)"invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by county agricultural agencies as noxious species. "Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act and identified on a Regional District noxious weed control list. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.
(y) "irrigation audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.
(z) "irrigation efficiency" (IE) means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average irrigation efficiency for purposes of this ordinance is 0.71. Greater irrigation efficiency can be expected from well designed and maintained systems.
(aa) "irrigation survey" means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.
(bb) "irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.
(cc) "landscape architect" means a person who holds a license to practice landscape architecture in the state of California Business and Professions Code, Section 5615.
(dd) "landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or

stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).
(ee) "landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
(ff) "Landscape Documentation Package" means the documents required under Section 492.3.
(gg) "landscape project" means total area of landscape in a project as defined in "landscape area" for the purposes of this ordinance, meeting requirements under Section 490.1.
(hh) "lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.
(ii) "local agency" means a city or county, including a charter city or charter county, that is responsible for adopting and implementing the ordinance. The local agency is also responsible for the enforcement of this ordinance, including but not limited to, approval of a permit and plan check or design review of a project.
(jj) "local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.
(kk) "low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
(ll) "main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.
(mm) "Maximum Applied Water Allowance" (MAWA) means the upper limit of annual applied water for the established landscaped area as specified in Section 492.4. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0.
(nn) "microclimate" means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.
(oo) "mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.
(pp) "mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.
(qq) "new construction" means, for the purposes of this ordinance, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.
(rr) "operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.
(ss) "overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).
(tt) "overspray" means the irrigation water which is delivered beyond the target area.
(uu) "permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.
(vv) "pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.
(ww) "plant factor" or "plant water use factor" is a factor , when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for low water

use plants is 0 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in this ordinance are derived from the Department of Water Resources 2000 publication "Water Use Classification of Landscape Species".
(xx) "precipitation rate" means the rate of application of water measured in inches per hour.
(yy) "project applicant" means the individual or entity submitting a Landscape Documentation Package required under Section 492.3, to request a permit, plan check, or design review from the local agency. A project applicant may be the property owner or his or her designee.
(zz) "rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.
(aaa) "record drawing" or "as-builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.
(bbb) "recreational area" means areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.
(ccc) "recycled water", "reclaimed water", or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.
(ddd) "reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in Section 495.1, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.
(eee) "rehabilitated landscape" means any re-landscaping project that requires a permit , plan check, or design review, meets the requirements of Section 490.1, and the modified landscape area is equal to or greater than 2,500 square feet, is 50% of the total landscape area, and the modifications are completed within one year.
(fff) "runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.
(ggg) "soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.
(hhh) "soil texture" means the classification of soil based on its percentage of sand, silt, and clay.
(iii)"Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.
(jjj) "sprinkler head" means a device which delivers water through a nozzle.
(kkk) "static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.
(lll) "station" means an area served by one valve or by a set of valves that operate simultaneously.
(mmm) "swing joint" means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.
(nnn) "turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.
(ooo) "valve" means a device used to control the flow of water in the irrigation system.
(ppp) "water conserving plant species" means a plant species identified as having a low plant factor.
(qqq) "water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and

swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.
(rrr) "watering window" means the time of day irrigation is allowed.
(sss) "WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.

Note: Authority Cited: Section 65595, Government Code. Reference: Sections 65592, 65596, Government Code.

§ 492. Provisions for New Construction or Rehabilitated Landscapes.
(a) A local agency may designate another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.1 Compliance with Landscape Documentation Package.
(a) Prior to construction, the local agency shall:
(1) provide the project applicant with the ordinance and procedures for permits, plan checks, or design reviews;
(2) review the Landscape Documentation Package submitted by the project applicant;
(3) approve or deny the Landscape Documentation Package;
(4) issue a permit or approve the plan check or design review for the project applicant; and
(5) upon approval of the Landscape Documentation Package, submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor.
(b) Prior to construction, the project applicant shall:
(1) submit a Landscape Documentation Package to the local agency.
(c) Upon approval of the Landscape Documentation Package by the local agency, the project applicant shall:
(1) receive a permit or approval of the plan check or design review and record the date of the permit in the Certificate of Completion;
(2) submit a copy of the approved Landscape Documentation Package along with the record drawings, and any other information to the property owner or his/her designee; and
(3) submit a copy of the Water Efficient Landscape Worksheet to the local water purveyor.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.2 Penalties.
(a) A local agency may establish and administer penalties to the project applicant for non-compliance with the ordinance to the extent permitted by law.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.3 Elements of the Landscape Documentation Package.

(a) The Landscape Documentation Package shall include the following six (6) elements:

(1) project information;

(A) date

(B) project applicant

(C) project address (if available, parcel and/or lot number(s))

(D) total landscape area (square feet)

(E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)

(F) water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well

(G) checklist of all documents in Landscape Documentation Package

(H) project contacts to include contact information for the project applicant and property owner

(I) applicant signature and date with statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package".

(2) Water Efficient Landscape Worksheet;

(A) hydrozone information table

(B) water budget calculations

1. Maximum Applied Water Allowance (MAWA)

2. Estimated Total Water Use (ETWU)

(3) soil management report;

(4) landscape design plan;

(5) irrigation design plan; and

(6) grading design plan.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.4 Water Efficient Landscape Worksheet.

(a) A project applicant shall complete the Water Efficient Landscape Worksheet which contains two sections (see sample worksheet in Appendix B):

(1) a hydrozone information table (see Appendix B, Section A) for the landscape project; and

(2) a water budget calculation (see Appendix B, Section B) for the landscape project. For the calculation of the Maximum Applied Water Allowance and Estimated Total Water Use, a project applicant shall use the ETo values from the Reference Evapotranspiration Table in Appendix A. For geographic areas not covered in Appendix A, use data from other cities located nearby in the same reference evapotranspiration zone, as found in the CIMIS Reference Evapotranspiration Zones Map, Department of Water Resources, 1999.

(b) Water budget calculations shall adhere to the following requirements:

(1) The plant factor used shall be from WUCOLS. The plant factor ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

(2) All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.

(3) All Special Landscape Areas shall be identified and their water use calculated as described below.

(4) ETAF for Special Landscape Areas shall not exceed 1.0.

(c) Maximum Applied Water Allowance

The Maximum Applied Water Allowance shall be calculated using the equation:

$$MAWA = (ETo)\ (0.62)\ [(0.7 \times LA) + (0.3 \times SLA)]$$

The example calculations below are hypothetical to demonstrate proper use of the equations and do not represent an existing and/or planned landscape project. The ETo values used in these calculations are from the Reference Evapotranspiration Table in Appendix A, for planning purposes only. For actual irrigation scheduling, automatic irrigation controllers are required and shall use current reference evapotranspiration data, such as from the California Irrigation Management Information System (CIMIS), other equivalent data, or soil moisture sensor data.

(1) Example MAWA calculation: a hypothetical landscape project in Fresno, CA with an irrigated landscape area of 50,000 square feet without any Special Landscape Area (SLA= 0, no edible plants, recreational areas, or use of recycled water). To calculate MAWA, the annual reference evapotranspiration value for Fresno is 51.1 inches as listed in the Reference Evapotranspiration Table in Appendix A.

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]
MAWA = Maximum Applied Water Allowance (gallons per year)
ETo = Reference Evapotranspiration (inches per year)
0.62 = Conversion Factor (to gallons)
0.7 = ET Adjustment Factor (ETAF)
LA = Landscape Area including SLA (square feet)
0.3 = Additional Water Allowance for SLA
SLA = Special Landscape Area (square feet)
MAWA = (51.1 inches) (0.62) [(0.7 x 50,000 square feet) + (0.3 x 0)]
= 1,108,870 gallons per year
To convert from gallons per year to hundred-cubic-feet per year:
= 1,108,870/748 = 1,482 hundred-cubic-feet per year
(100 cubic feet = 748 gallons)

(2) In this next hypothetical example, the landscape project in Fresno, CA has the same ETo value of 51.1 inches and a total landscape area of 50,000 square feet. Within the 50,000 square foot project, there is now a 2,000 square foot area planted with edible plants. This 2,000 square foot area is considered to be a Special Landscape Area.

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]
MAWA = (51.1 inches) (0.62) [(0.7 x 50,000 square feet) + (0.3 x 2,000 square feet)]
= 31.68 x [35,000 + 600] gallons per year
= 31.68 x 35,600 gallons per year
=1,127,808 gallons per year or 1,508 hundred-cubic-feet per year

(d) Estimated Total Water Use.

The Estimated Total Water Use shall be calculated using the equation below. The sum of the Estimated Total Water Use calculated for all hydrozones shall not exceed MAWA.

$$ETWU = (ETo)(0.62)\left(\frac{PF \times HA}{IE} + SLA\right)$$

Where:

ETWU = Estimated Total Water Use per year (gallons)
ETo = Reference Evapotranspiration (inches)
PF = Plant Factor from WUCOLS (see Section 491)
HA = Hydrozone Area [high, medium, and low water use areas] (square feet)
SLA = Special Landscape Area (square feet)
0.62 = Conversion Factor
IE = Irrigation Efficiency (minimum 0.71)

(1) Example ETWU calculation: landscape area is 50,000 square feet; plant water use type, plant factor, and hydrozone area are shown in the table below. The ETo value is 51.1 inches per year. There are no Special Landscape Areas (recreational area, area permanently and solely dedicated to edible plants, and area irrigated with recycled water) in this example.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	10,000	7,000
3	Medium	0.5	16,000	8,000
4	Low	0.3	7,000	2,100
5	Low	0.2	10,000	2,000
			Sum	24,700

*Plant Factor from WUCOLS

$$ETWU = (51.1)(0.62)\left(\frac{24{,}700}{0.71} + 0\right)$$

= 1,102,116 gallons per year

Compare ETWU with MAWA: For this example MAWA = (51.1) (0.62) [(0.7 x 50,000) + (0.3 x 0)] = 1,108,870 gallons per year. The ETWU (1,102,116 gallons per year) is less than MAWA (1,108,870 gallons per year). In this example, the water budget complies with the MAWA.

(2) Example ETWU calculation: total landscape area is 50,000 square feet, 2,000 square feet of which is planted with edible plants. The edible plant area is considered a Special Landscape Area (SLA). The reference evapotranspiration value is 51.1 inches per year. The plant type, plant factor, and hydrozone area are shown in the table below.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	9,000	6,300
3	Medium	0.5	15,000	7,500
4	Low	0.3	7,000	2,100
5	Low	0.2	10,000	2,000
			Sum	23,500
6	SLA	1.0	2,000	2,000

*Plant Factor from WUCOLS

$$ETWU = (51.1)(0.62)\left(\frac{23{,}500}{0.71} + 2{,}000\right)$$

= (31.68) (33,099 + 2,000)

= 1,111,936 gallons per year

Compare ETWU with MAWA. For this example:
MAWA = (51.1) (0.62) [(0.7 x 50,000) + (0.3 x 2,000)]
= 31.68 x [35,000 + 600]
= 31.68 x 35,600
=1,127,808 gallons per year

The ETWU (1,111,936 gallons per year) is less than MAWA (1,127,808 gallons per year). For this example, the water budget complies with the MAWA.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.5 Soil Management Report.

(a) In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant, or his/her designee, as follows:
(1) Submit soil samples to a laboratory for analysis and recommendations.
(A) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
(B) The soil analysis may include:
1. soil texture;
2. infiltration rate determined by laboratory test or soil texture infiltration rate table;
3. pH;
4. total soluble salts;
5. sodium;
6. percent organic matter; and
7. recommendations.
(2) The project applicant, or his/her designee, shall comply with one of the following:
(A) If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package; or
(B) If significant mass grading is planned, the soil analysis report shall be submitted to the local agency as part of the Certificate of Completion.
(3) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.
(4) The project applicant, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with Certificate of Completion.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.6 Landscape Design Plan.

(a) For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.
(1) Plant Material
(A) Any plant may be selected for the landscape, providing the Estimated Total Water Use in the landscape area does not exceed the Maximum Applied Water Allowance. To encourage the efficient use of water, the following is highly recommended:
1. protection and preservation of native species and natural vegetation;
2. selection of water-conserving plant and turf species;

3. selection of plants based on disease and pest resistance;
4. selection of trees based on applicable local tree ordinances or tree shading guidelines; and
5. selection of plants from local and regional landscape program plant lists.
(B) Each hydrozone shall have plant materials with similar water use, with the exception of hydrozones with plants of mixed water use, as specified in Section 492.7(a)(2)(D).
(C) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site. To encourage the efficient use of water, the following is highly recommended:
1. use the Sunset Western Climate Zone System which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;
2. recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure [e.g., buildings, sidewalks, power lines]; and
3. consider the solar orientation for plant placement to maximize summer shade and winter solar gain.
(D) Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).
(E) A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291(a) and (b). Avoid fire-prone plant materials and highly flammable mulches.
(F) The use of invasive and/or noxious plant species is strongly discouraged.
(G) The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.
(2) Water Features
(A) Recirculating water systems shall be used for water features.
(B) Where available, recycled water shall be used as a source for decorative water features.
(C) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.
(D) Pool and spa covers are highly recommended.
(3) Mulch and Amendments
(A) A minimum two inch (2") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
(B) Stabilizing mulching products shall be used on slopes.
(C) The mulching portion of the seed/mulch slurry in hydro-seeded applications shall meet the mulching requirement.
(D) Soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected (see Section 492.5).
(b) The landscape design plan, at a minimum, shall:
(1) delineate and label each hydrozone by number, letter, or other method;
(2) identify each hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation;
(3) identify recreational areas;
(4) identify areas permanently and solely dedicated to edible plants;
(5) identify areas irrigated with recycled water;
(6) identify type of mulch and application depth;
(7) identify soil amendments, type, and quantity;
(8) identify type and surface area of water features;
(9) identify hardscapes (pervious and non-pervious);

(10) identify location and installation details of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater. Stormwater best management practices are encouraged in the landscape design plan and examples include, but are not limited to:
(A) infiltration beds, swales, and basins that allow water to collect and soak into the ground;
(B) constructed wetlands and retention ponds that retain water, handle excess flow, and filter pollutants; and
(C) pervious or porous surfaces (e.g., permeable pavers or blocks, pervious or porous concrete, etc.) that minimize runoff.
(11) identify any applicable rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.);
(12) contain the following statement: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan"; and
(13) bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title16 of the California Code of Regulations, and Section 6721 of the Food and Agriculture Code.)

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code and Section 1351, Civil Code.

§ 492.7 Irrigation Design Plan.
(a) For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.
(1) System
(A) Dedicated landscape water meters are highly recommended on landscape areas smaller than 5,000 square feet to facilitate water management.
(B) Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling in all irrigation systems.
(C) The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
1. If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.
2. Static water pressure, dynamic or operating pressure. and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.
(D) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.
(E) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a main line break) or routine repair.

(F) Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. A project applicant shall refer to the applicable local agency code (i.e., public health) for additional backflow prevention requirements.
(G) High flow sensors that detect and report high flow conditions created by system damage or malfunction are recommended.
(H) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
(I) Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.
(J) The design of the irrigation system shall conform to the hydrozones of the landscape design plan.
(K) The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in Section 492.4 regarding the Maximum Applied Water Allowance.
(L) It is highly recommended that the project applicant or local agency inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.
(M) In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.
(N) Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.
(O) Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.
(P) Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to high traffic areas.
(Q) Check valves or anti-drain valves are required for all irrigation systems.
(R) Narrow or irregularly shaped areas, including turf, less than eight (8) feet in width in any direction shall be irrigated with subsurface irrigation or low volume irrigation system.
(S) Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:
1. the landscape area is adjacent to permeable surfacing and no runoff occurs; or
2. the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or
3. the irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in Section 492.7 (a)(1)(H). Prevention of overspray and runoff must be confirmed during the irrigation audit.
(T) Slopes greater than 25% shall not be irrigated with an irrigation system with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.
(2) Hydrozone
(A) Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
(B) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
(C) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.
(D) Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if:

1. plant factor calculation is based on the proportions of the respective plant water uses and their plant factor; or
2. the plant factor of the higher water using plant is used for calculations.
(E) Individual hydrozones that mix high and low water use plants shall not be permitted.
(F) On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the Hydrozone Information Table (see Appendix B Section A). This table can also assist with the irrigation audit and programming the controller.
(b) The irrigation design plan, at a minimum, shall contain:
(1) location and size of separate water meters for landscape;
(2) location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;
(3) static water pressure at the point of connection to the public water supply;
(4) flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;
(5) recycled water irrigation systems as specified in Section 492.14;
(6) the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan"; and
(7) the signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code.)

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.8 Grading Design Plan.
(a) For the efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.
(1) The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including:
(A) height of graded slopes;
(B) drainage patterns;
(C) pad elevations;
(D) finish grade; and
(E) stormwater retention improvements, if applicable.
(2) To prevent excessive erosion and runoff, it is highly recommended that project applicants:
(A) grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;
(B) avoid disruption of natural drainage patterns and undisturbed soil; and
(C) avoid soil compaction in landscape areas.
(3) The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading design plan" and shall bear the signature of a licensed professional as authorized by law.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.9 Certificate of Completion.

(a) The Certificate of Completion (see Appendix C for a sample certificate) shall include the following six (6) elements:

(1) project information sheet that contains:

(A) date;

(B) project name;

(C) project applicant name, telephone, and mailing address;

(D) project address and location; and

(E) property owner name, telephone, and mailing address;

(2) certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package;

(A) where there have been significant changes made in the field during construction, these "as-built" or record drawings shall be included with the certification;

(3) irrigation scheduling parameters used to set the controller (see Section 492.10);

(4) landscape and irrigation maintenance schedule (see Section 492.11);

(5) irrigation audit report (see Section 492.12); and

(6) soil analysis report, if not submitted with Landscape Documentation Package, and documentation verifying implementation of soil report recommendations (see Section 492.5).

(b) The project applicant shall:

(1) submit the signed Certificate of Completion to the local agency for review;

(2) ensure that copies of the approved Certificate of Completion are submitted to the local water purveyor and property owner or his or her designee.

(c) The local agency shall:

(1) receive the signed Certificate of Completion from the project applicant;

(2) approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the local agency shall provide information to the project applicant regarding reapplication, appeal, or other assistance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.10 Irrigation Scheduling.

(a) For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

(1) Irrigation scheduling shall be regulated by automatic irrigation controllers.

(2) Overhead irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it. If allowable hours of irrigation differ from the local water purveyor, the stricter of the two shall apply. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(3) For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

(4) Parameters used to set the automatic controller shall be developed and submitted for each of the following:

(A) the plant establishment period;

(B) the established landscape; and
(C) temporarily irrigated areas.
(5) Each irrigation schedule shall consider for each station all of the following that apply:
(A) irrigation interval (days between irrigation);
(B) irrigation run times (hours or minutes per irrigation event to avoid runoff);
(C) number of cycle starts required for each irrigation event to avoid runoff;
(D) amount of applied water scheduled to be applied on a monthly basis;
(E) application rate setting;
(F) root depth setting;
(G) plant type setting;
(H) soil type;
(I) slope factor setting;
(J) shade factor setting; and
(K) irrigation uniformity or efficiency setting.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.11 Landscape and Irrigation Maintenance Schedule.
(a) Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the Certificate of Completion.
(b) A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing and obstruction to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
(c) Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.
(d) A project applicant is encouraged to implement sustainable or environmentally-friendly practices for overall landscape maintenance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.12 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.
(a) All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.
(b) For new construction and rehabilitated landscape projects installed after January 1, 2010, as described in Section 490.1:
(1) the project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule;
(2) the local agency shall administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits, and irrigation surveys for compliance with the Maximum Applied Water Allowance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.13 Irrigation Efficiency.

(a) For the purpose of determining Maximum Applied Water Allowance, average irrigation efficiency is assumed to be 0.71. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average landscape irrigation efficiency of 0.71.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.14 Recycled Water.

(a) The installation of recycled water irrigation systems shall allow for the current and future use of recycled water, unless a written exemption has been granted as described in Section 492.14(b).
(b) Irrigation systems and decorative water features shall use recycled water unless a written exemption has been granted by the local water purveyor stating that recycled water meeting all public health codes and standards is not available and will not be available for the foreseeable future.
(c) All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and State laws.
(d) Landscapes using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for Special Landscape Areas shall not exceed 1.0.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.15 Stormwater Management.

(a) Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality. Implementing stormwater best management practices into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration are encouraged.
(b) Project applicants shall refer to the local agency or Regional Water Quality Control Board for information on any applicable stormwater ordinances and stormwater management plans.
(c) Rain gardens, cisterns, and other landscapes features and practices that increase rainwater capture and create opportunities for infiltration and/or onsite storage are recommended.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.16 Public Education.

(a) Publications. Education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.
(1) A local agency shall provide information to owners of new, single-family residential homes regarding the design, installation, management, and maintenance of water efficient landscapes.
(b) Model Homes. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this ordinance.
(1) Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as hydrozones, irrigation equipment, and others that contribute to the overall water efficient theme.
(2) Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 492.17 Environmental Review.
(a) The local agency must comply with the California Environmental Quality Act (CEQA), as appropriate.

Note: Authority cited: Section 21082, Public Resources Code. Reference: Sections 21080, 21082, Public Resources Code.

§ 493. Provisions for Existing Landscapes.
(a) A local agency may designate another agency, such as a water purveyor, to implement some or all of the requirements contained in this ordinance. Local agencies may collaborate with water purveyors to define each entity's specific responsibilities relating to this ordinance.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 493.1 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.
(a) This section, 493.1, shall apply to all existing landscapes that were installed before January 1, 2010 and are over one acre in size.
(1) For all landscapes in 493.1(a) that have a water meter, the local agency shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the Maximum Applied Water Allowance for existing landscapes. The Maximum Applied Water Allowance for existing landscapes shall be calculated as: MAWA = (0.8) (ETo)(LA)(0.62).
(2) For all landscapes in 493.1(a), that do not have a meter, the local agency shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.
(b) All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

§ 493.2 Water Waste Prevention.
(a) Local agencies shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape due to low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures. Penalties for violation of these prohibitions shall be established locally.
(b) Restrictions regarding overspray and runoff may be modified if:
(1) the landscape area is adjacent to permeable surfacing and no runoff occurs; or
(2) the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping.

Note: Authority cited: Section 65594, Government Code. Reference: Section 65596, Government Code.

§ 494. Effective Precipitation.
(a) A local agency may consider Effective Precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate Maximum Applied Water Allowance:
MAWA= (ETo - Eppt) (0.62) [(0.7 x LA) + (0.3 x SLA)].

Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.

Appendices.

Appendix A. Reference Evapotranspiration (ETo) Table.

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
LAKE													
Lakeport	1.1	1.3	2.6	3.5	5.1	6.0	7.3	6.1	4.7	2.9	1.2	0.9	42.8
Lower Lake	1.2	1.4	2.7	4.5	5.3	6.3	7.4	6.4	5.0	3.1	1.3	0.9	45.4
LASSEN													
Buntingville	1.0	1.7	3.5	4.9	6.2	7.3	8.4	7.5	5.4	3.4	1.5	0.9	51.8
Ravendale	0.6	1.1	2.3	4.1	5.6	6.7	7.9	7.3	4.7	2.8	1.2	0.5	44.9
Susanville	0.7	1.0	2.2	4.1	5.6	6.5	7.8	7.0	4.6	2.8	1.2	0.5	44.0
LOS ANGELES													
Burbank	2.1	2.8	3.7	4.7	5.1	6.0	6.6	6.7	5.4	4.0	2.6	2.0	51.7
Claremont	2.0	2.3	3.4	4.6	5.0	6.0	7.0	7.0	5.3	4.0	2.7	2.1	51.3
El Dorado	1.7	2.2	3.6	4.8	5.1	5.7	5.9	5.9	4.4	3.2	2.2	1.7	46.3
Glendale	2.0	2.2	3.3	3.8	4.7	4.8	5.7	5.6	4.3	3.3	2.2	1.8	43.7
Glendora	2.0	2.5	3.6	4.9	5.4	6.1	7.3	6.8	5.7	4.2	2.6	2.0	53.1
Gorman	1.6	2.2	3.4	4.6	5.5	7.4	7.7	7.1	5.9	3.6	2.4	1.1	52.4
Hollywood Hills	2.1	2.2	3.8	5.4	6.0	6.5	6.7	6.4	5.2	3.7	2.8	2.1	52.8
Lancaster	2.1	3.0	4.6	5.9	8.5	9.7	11.0	9.8	7.3	4.6	2.8	1.7	71.1
Long Beach	1.8	2.1	3.3	3.9	4.5	4.3	5.3	4.7	3.7	2.8	1.8	1.5	39.7
Los Angeles	2.2	2.7	3.7	4.7	5.5	5.8	6.2	5.9	5.0	3.9	2.6	1.9	50.1
Monrovia	2.2	2.3	3.8	4.3	5.5	5.9	6.9	6.4	5.1	3.2	2.5	2.0	50.2
Palmdale	2.0	2.6	4.6	6.2	7.3	8.9	9.8	9.0	6.5	4.7	2.7	2.1	66.2
Pasadena	2.1	2.7	3.7	4.7	5.1	6.0	7.1	6.7	5.6	4.2	2.6	2.0	52.3
Pearblossom	1.7	2.4	3.7	4.7	7.3	7.7	9.9	7.9	6.4	4.0	2.6	1.6	59.9
Pomona	1.7	2.0	3.4	4.5	5.0	5.8	6.5	6.4	4.7	3.5	2.3	1.7	47.5
Redondo Beach	2.2	2.4	3.3	3.8	4.5	4.7	5.4	4.8	4.4	2.8	2.4	2.0	42.6
San Fernando	2.0	2.7	3.5	4.6	5.5	5.9	7.3	6.7	5.3	3.9	2.6	2.0	52.0
Santa Clarita	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Santa Monica	1.8	2.1	3.3	4.5	4.7	5.0	5.4	5.4	3.9	3.4	2.4	2.2	44.2
MADERA													
Chowchilla	1.0	1.4	3.2	4.7	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.4
Madera	0.9	1.4	3.2	4.8	6.6	7.8	8.5	7.3	5.3	3.4	1.4	0.7	51.5
Raymond	1.2	1.5	3.0	4.6	6.1	7.6	8.4	7.3	5.2	3.4	1.4	0.7	50.5
MARIN													
Black Point	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
Novato	1.3	1.5	2.4	3.5	4.4	6.0	5.9	5.4	4.4	2.8	1.4	0.7	39.8
Point San Pedro	1.1	1.7	3.0	4.2	5.2	6.2	6.6	5.8	4.3	2.8	1.3	0.9	43.0
San Rafael	1.2	1.3	2.4	3.3	4.0	4.8	4.8	4.9	4.3	2.7	1.3	0.7	35.8
MARIPOSA													
Coulterville	1.1	1.5	2.8	4.4	5.9	7.3	8.1	7.0	5.3	3.4	1.4	0.7	48.8
Mariposa	1.1	1.5	2.8	4.4	5.9	7.4	8.2	7.1	5.0	3.4	1.4	0.7	49.0
Yosemite Village	0.7	1.0	2.3	3.7	5.1	6.5	7.1	6.1	4.4	2.9	1.1	0.6	41.4
MENDOCINO													
Fort Bragg	0.9	1.3	2.2	3.0	3.7	3.5	3.7	3.7	3.0	2.3	1.2	0.7	29.0
Hopland	1.1	1.3	2.6	3.4	5.0	5.9	6.5	5.7	4.5	2.8	1.3	0.7	40.9
Point Arena	1.0	1.3	2.3	3.0	3.7	3.9	3.7	3.7	3.0	2.3	1.2	0.7	29.6
Sanel Valley	1.0	1.6	3.0	4.6	6.0	7.0	8.0	7.0	5.2	3.4	1.4	0.9	49.1
Ukiah	1.0	1.3	2.6	3.3	5.0	5.8	6.7	5.9	4.5	2.8	1.3	0.7	40.9
MERCED													
Kesterson	0.9	1.7	3.4	5.5	7.3	8.2	8.6	7.4	5.5	3.8	1.8	0.9	55.1
Los Banos	1.0	1.5	3.2	4.7	6.1	7.4	8.2	7.0	5.3	3.4	1.4	0.7	50.0
Merced	1.0	1.5	3.2	4.7	6.6	7.9	8.5	7.2	5.3	3.4	1.4	0.7	51.5

Appendix A - Reference Evapotranspiration (ETo) Table*

County and City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
TULARE													
Dinuba	1.1	1.5	3.2	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Lindcove	0.9	1.6	3.0	4.8	6.5	7.6	8.1	7.2	5.2	3.4	1.6	0.9	50.6
Porterville	1.2	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.3	3.4	1.4	0.7	52.1
Visalia	0.9	1.7	3.3	5.1	6.8	7.7	7.9	6.9	4.9	3.2	1.5	0.8	50.7
TUOLUMNE													
Groveland	1.1	1.5	2.8	4.1	5.7	7.2	7.9	6.6	5.1	3.3	1.4	0.7	47.5
Sonora	1.1	1.5	2.8	4.1	5.8	7.2	7.9	6.7	5.1	3.2	1.4	0.7	47.6
VENTURA													
Camarillo	2.2	2.5	3.7	4.3	5.0	5.2	5.9	5.4	4.2	3.0	2.5	2.1	46.1
Oxnard	2.2	2.5	3.2	3.7	4.4	4.6	5.4	4.8	4.0	3.3	2.4	2.0	42.3
Piru	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Port Hueneme	2.0	2.3	3.3	4.6	4.9	4.9	4.9	5.0	3.7	3.2	2.5	2.2	43.5
Thousand Oaks	2.2	2.6	3.4	4.5	5.4	5.9	6.7	6.4	5.4	3.9	2.6	2.0	51.0
Ventura	2.2	2.6	3.2	3.8	4.6	4.7	5.5	4.9	4.1	3.4	2.5	2.0	43.5
YOLO													
Bryte	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
Davis	1.0	1.9	3.3	5.0	6.4	7.6	8.2	7.1	5.4	4.0	1.8	1.0	52.5
Esparto	1.0	1.7	3.4	5.5	6.9	8.1	8.5	7.5	5.8	4.2	2.0	1.2	55.8
Winters	1.7	1.7	2.9	4.4	5.8	7.1	7.9	6.7	5.3	3.3	1.6	1.0	49.4
Woodland	1.0	1.8	3.2	4.7	6.1	7.7	8.2	7.2	5.4	3.7	1.7	1.0	51.6
Zamora	1.1	1.9	3.5	5.2	6.4	7.4	7.8	7.0	5.5	4.0	1.9	1.2	52.8
YUBA													
Browns Valley	1.0	1.7	3.1	4.7	6.1	7.5	8.5	7.6	5.7	4.1	2.0	1.1	52.9
Brownsville	1.1	1.4	2.6	4.0	5.7	6.8	7.9	6.8	5.3	3.4	1.5	0.9	47.4

* The values in this table were derived from:
1) California Irrigation Management Information System (CIMIS);
2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999; and
3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources
(1987) Bulletin 1922, 4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

Appendix B – Sample Water Efficient Landscape Worksheet.

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.
Please complete all sections (A and B) of the worksheet.

SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each hydrozone. Use as many tables as necessary to provide the square footage of landscape area per hydrozone.

Hydrozone*	Zone or Valve	Irrigation Method**	Area (Sq. Ft.)	% of Landscape Area
	Total			100%

** Hydrozone*
HW = High Water Use Plants
MW = Moderate Water Use Plants
LW = Low Water Use Plants

***Irrigation Method*
MS = Micro-spray
S = Spray
R = Rotor
B= Bubbler
D= Drip
O = Other

SECTION B. WATER BUDGET CALCULATIONS

Section B1. Maximum Applied Water Allowance (MAWA)

The project's Maximum Applied Water Allowance shall be calculated using this equation:

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]

where:

MAWA = Maximum Applied Water Allowance (gallons per year)
ETo = Reference Evapotranspiration from Appendix A (inches per year)
0.7 = ET Adjustment Factor (ETAF)
LA = Landscaped Area includes Special Landscape Area (square feet)
0.62 = Conversion factor (to gallons per square foot)
SLA = Portion of the landscape area identified as Special Landscape Area (square feet)
0.3 = the additional ET Adjustment Factor for Special Landscape Area (1.0 - 0.7 = 0.3)

Maximum Applied Water Allowance = _____gallons per year

Show calculations.

Effective Precipitation (Eppt)

If considering Effective Precipitation, use 25% of annual precipitation. Use the following equation to calculate Maximum Applied Water Allowance:

MAWA= (ETo – Eppt) (0.62) [(0.7 x LA) + (0.3 x SLA)]

Maximum Applied Water Allowance = _____gallons per year

Show calculations.

Section B2. Estimated Total Water Use (ETWU)

The project's Estimated Total Water Use is calculated using the following formula:

$$ETWU = (ETo)(0.62)\left(\frac{PF\,x\,HA}{IE} + SLA\right)$$

where:

ETWU = Estimated total water use per year (gallons per year)
ETo = Reference Evapotranspiration (inches per year)
PF = Plant Factor from WUCOLS (see Definitions)
HA = Hydrozone Area [high, medium, and low water use areas] (square feet)
SLA = Special Landscape Area (square feet)
0.62 = Conversion Factor (to gallons per square foot)
IE = Irrigation Efficiency (minimum 0.71)

Hydrozone Table for Calculating ETWU

Please complete the hydrozone table(s). Use as many tables as necessary.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)	Area (HA) (square feet)	PF x HA (square feet)
			Sum	
	SLA			

Estimated Total Water Use = _____ **gallons**

Show calculations.

Appendix C – Sample Certificate of Completion.

CERTIFICATE OF COMPLETION

This certificate is filled out by the project applicant upon completion of the landscape project.

PART 1. PROJECT INFORMATION SHEET

Date		
Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Project Address and Location:

Street Address		Parcel, tract or lot number, if available.
City		Latitude/Longitude (optional)
State	Zip Code	

Property Owner or his/her designee:

Name	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner

"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

_____

Property Owner Signature Date

Please answer the questions below:

1. Date the Landscape Documentation Package was submitted to the local agency_____
2. Date the Landscape Documentation Package was approved by the local agency_____
3. Date that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the local water purveyor_____

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

"I/we certify that based upon periodic site observations, the work has been substantially completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package."

<table>
<tr><td>Signature*</td><td colspan="2">Date</td></tr>
<tr><td rowspan="2">Name (print)</td><td colspan="2">Telephone No.</td></tr>
<tr><td colspan="2">Fax No.</td></tr>
<tr><td>Title</td><td colspan="2">Email Address</td></tr>
<tr><td colspan="3">License No. or Certification No.</td></tr>
<tr><td>Company</td><td colspan="2">Street Address</td></tr>
<tr><td>City</td><td>State</td><td>Zip Code</td></tr>
</table>

*Signer of the landscape design plan, signer of the irrigation plan, or a licensed landscape contractor.

PART 3. IRRIGATION SCHEDULING

Attach parameters for setting the irrigation schedule on controller per ordinance Section 492.10.

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Attach schedule of Landscape and Irrigation Maintenance per ordinance Section 492.11.

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Attach Landscape Irrigation Audit Report per ordinance Section 492.12.

PART 6. SOIL MANAGEMENT REPORT

Attach soil analysis report, if not previously submitted with the Landscape Documentation Package per ordinance Section 492.5.

Attach documentation verifying implementation of recommendations from soil analysis report per ordinance Section 492.5.

Assembly Bill No. 1881

CHAPTER 559

An act to add Section 1353.8 to the Civil Code, to repeal and add Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code, to add Section 25401.9 to the Public Resources Code, and to add Article 4.5 (commencing with Section 535) to Chapter 8 of Division 1 of the Water Code, relating to water conservation.

[Approved by Governor September 28, 2006. Filed with Secretary of State September 28, 2006.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1881, Laird. Water conservation.

(1) Existing law, the Davis-Sterling Common Interest Development Act, defines and regulates common interest developments, which include community apartment projects, condominium projects, planned developments, and stock cooperatives.

This bill would provide that the architectural guidelines of a common interest development shall not prohibit or include conditions that have the effect of prohibiting the use of low water-using plants as a group.

(2) The Water Conservation in Landscaping Act requires the Department of Water Resources to appoint an advisory task force to work with the department to draft a model local water efficient landscape ordinance that local agencies may adopt, requires the task force to submit the ordinance to the department on or before May 1, 1991, and requires the task force to cease to exist on the date the department adopts the model ordinance or January 1, 1992, whichever occurs first. The act requires the department, not later than January 1, 1992, to adopt a model local water efficient landscape ordinance which each local agency may adopt. The act makes the model local water efficient landscape ordinance adopted by the department applicable within the jurisdiction of a local agency if that local agency, by January 1, 1993, has not adopted a water efficient landscape ordinance or has not adopted certain findings that the adoption of the ordinance is unnecessary.

This bill would specify that the provision making the model ordinance applicable to a local agency on and after January 1, 1993, does not apply to chartered cities. The bill would require the department, to the extent funds are appropriated, not later than January 1, 2009, by regulation, to update the model ordinance in accordance with specified requirements. The bill would require the department to prepare and submit to the Legislature a prescribed report before the adoption of the updated model ordinance. The bill would require a local agency, not later than January 1, 2010, to adopt the updated model ordinance or other water efficient

landscape ordinance that is at least as effective in conserving water as the updated model ordinance. The bill would make the updated model ordinance applicable within the jurisdiction of a local agency, including a chartered city, if, by January 1, 2010, the local agency has not adopted its own water efficient landscape ordinance or the updated model ordinance. The bill would require each local agency, not later than January 31, 2010, to notify the department as to whether the local agency is subject to the department's updated model ordinance and, if not, to submit to the department a copy of the water efficient landscape ordinance adopted by the local agency, among other documents. The bill would require the department, to the extent funds are appropriated, not later than January 31, 2011, to prepare and submit a report to the Legislature relating to the status of water efficient landscape ordinances adopted by local agencies.

By imposing requirements on local agencies in connection with the adoption of water efficient landscape ordinances, the bill would impose a state-mandated local program.

(3) Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission), after one or more public hearings, to take specified action to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy. Existing law requires the Energy Commission, by January 1, 2004, to amend specified regulations to require that residential clothes washers manufactured on or after January 1, 2007, be at least as water efficient as commercial clothes washers, and to take certain other related action.

This bill would require the Energy Commission, in consultation with the department, to adopt, to the extent funds are available, by regulation performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water. The bill would require the Energy Commission to adopt those requirements for landscape irrigation controllers and moisture sensors by January 1, 2010, and, on and after January 1, 2012, would prohibit the sale or installation of an irrigation controller or moisture sensor for landscape use unless the controller or sensor meets those adopted requirements. The bill would require the Energy Commission, on or before January 1, 2010, to prepare and submit to the Legislature a report that sets forth a proposed schedule for adopting performance standards and labeling requirements for emission devices and valves.

(4) Existing law generally requires an urban water supplier to install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.

This bill would require a water purveyor as defined, to require as a condition of new retail water service on and after January 1, 2008, the installation of separate water meters to measure the volume of water used exclusively for landscape purposes. The bill would make this requirement applicable to specified service connections.

(5) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

The people of the State of California do enact as follows:

SECTION 1. Section 1353.8 is added to the Civil Code, to read:

1353.8. The architectural guidelines of a common interest development shall not prohibit or include conditions that have the effect of prohibiting the use of low water-using plants as a group.

SEC. 2. Article 10.8 (commencing with Section 65591) of Chapter 3 of Division 1 of Title 7 of the Government Code is repealed.

SEC. 3. Article 10.8 (commencing with Section 65591) is added to Chapter 3 of Division 1 of Title 7 of the Government Code, to read:

Article 10.8. Water Conservation in Landscaping

65591. This article shall be known and may be cited as the Water Conservation in Landscaping Act.

65592. Unless the context requires otherwise, the following definitions govern the construction of this article:

(a) "Department" means the Department of Water Resources.

(b) "Local agency" means any city, county, or city and county, including a charter city or charter county.

(c) "Water efficient landscape ordinance" means an ordinance or resolution adopted by a local agency, or prepared by the department, to address the efficient use of water in landscaping.

65593. The Legislature finds and declares all of the following:

(a) The waters of the state are of limited supply and are subject to ever increasing demands.

(b) The continuation of California's economic prosperity is dependent on adequate supplies of water being available for future uses.

(c) It is the policy of the state to promote the conservation and efficient use of water and to prevent the waste of this valuable resource.

(d) Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development.

(e) Landscape design, installation, maintenance, and management can and should be water efficient.

(f) Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the

beneficial use to be served and the right does not and shall not extend to waste or unreasonable use or unreasonable method of use.

(g) (1) The Legislature, pursuant to Chapter 682 of the Statutes of 2004, requested the California Urban Water Conservation Council to convene a stakeholders work group to develop recommendations for improving the efficiency of water use in urban irrigated landscapes.

(2) The work group report includes a recommendation to update the model water efficient landscape ordinance adopted by the department pursuant to Chapter 1145 of the Statutes of 1990.

(3) It is the intent of the Legislature that the department promote the use of this updated model ordinance.

(h) Notwithstanding Article 13 (commencing with Section 65700), this article addresses a matter that is of statewide concern and is not a municipal affair as that term is used in Section 5 of Article XI of the California Constitution. Accordingly, it is the intent of the Legislature that this article, except as provided in Section 65594, apply to all cities and counties, including charter cities and charter counties.

65594. (a) Except as provided in Section 65595, if by January 1, 1993, a local agency did not adopt a water efficient landscape ordinance and did not adopt findings based on climatic, geological, or topographical conditions, or water availability that state that a water efficient landscape ordinance is unnecessary, the model water efficient landscape ordinance adopted by the department pursuant to Chapter 1145 of the Statutes of 1990 shall apply within the jurisdiction of the local agency as of that date, shall be enforced by the local agency, and shall have the same force and effect as if adopted by the local agency.

(b) Notwithstanding subdivision (b) of Section 65592, subdivision (a) does not apply to chartered cities.

(c) This section shall apply only until the department updates the model ordinance.

65595. (a) (1) To the extent funds are appropriated, not later than January 1, 2009, by regulation, the department shall update the model water efficient landscape ordinance adopted pursuant to Chapter 1145 of the Statutes of 1990, after holding one or more public hearings. The updated model ordinance shall be based on the recommendations set forth in the report prepared pursuant to Chapter 682 of the Statutes of 2004 and shall meet the requirements of Section 65596.

(2) Before the adoption of the updated model ordinance pursuant to paragraph (1), the department shall prepare and submit to the Legislature a report relating to both of the following:

(A) The extent to which local agencies have complied with the model water efficient landscape ordinance adopted pursuant to Chapter 1145 of the Statutes of 1990.

(B) The department's recommendations regarding the landscape water budget component of the updated model ordinance described in subdivision (b) of Section 65596.

(b) Not later than January 31, 2009, the department shall distribute the updated model ordinance adopted pursuant to subdivision (a) to all local agencies and other interested parties.

(c) On or before January 1, 2010, a local agency shall adopt one of the following:

(1) A water efficient landscape ordinance that is, based on evidence in the record, at least as effective in conserving water as the updated model ordinance adopted by the department pursuant to subdivision (a).

(2) The updated model ordinance described in paragraph (1).

(d) If the local agency has not adopted, on or before January 1, 2010, a water efficient landscape ordinance pursuant to subdivision (c), the updated model ordinance adopted by the department pursuant to subdivision (a) shall apply within the jurisdiction of the local agency as of that date, shall be enforced by the local agency, and shall have the same force and effect as if adopted by the local agency.

(e) Nothing in this article shall be construed to require the local agency's water efficient landscape ordinance to duplicate, or to conflict with, a water efficiency program or measure implemented by a public water system, as defined in Section 116275 of the Health and Safety Code, within the jurisdictional boundaries of the local agency.

65596. The updated model ordinance adopted pursuant to Section 65595 shall do all the following in order to reduce water use:

(a) Include provisions for water conservation and the appropriate use and groupings of plants that are well-adapted to particular sites and to particular climatic, soil, or topographic conditions. The model ordinance shall not prohibit or require specific plant species, but it may include conditions for the use of plant species or encourage water conserving plants. However, the model ordinance shall not include conditions that have the effect of prohibiting or requiring specific plant species.

(b) Include a landscape water budget component that establishes the maximum amount of water to be applied through the irrigation system, based on climate, landscape size, irrigation efficiency, and plant needs.

(c) Promote the benefits of consistent local ordinances in neighboring areas.

(d) Encourage the capture and retention of stormwater onsite to improve water use efficiency or water quality.

(e) Include provisions for the use of automatic irrigation systems and irrigation schedules based on climatic conditions, specific terrains and soil types, and other environmental conditions. The model ordinance shall include references to local, state, and federal laws and regulations regarding standards for water-conserving irrigation equipment. The model ordinance may include climate information for irrigation scheduling based on the California Irrigation Management Information System.

(f) Include provisions for onsite soil assessment and soil management plans that include grading and drainage to promote healthy plant growth and to prevent excessive erosion and runoff, and the use of mulches in shrub areas, garden beds, and landscaped areas where appropriate.

(g) Promote the use of recycled water consistent with Article 4 (commencing with Section 13520) of Chapter 7 of Division 7 of the Water Code.

(h) Seek to educate water users on the efficient use of water and the benefits of doing so.

(i) Address regional differences, including fire prevention needs.

(j) Exempt landscaping that is part of a registered historical site.

(k) Encourage the use of economic incentives to promote the efficient use of water.

(*l*) Include provisions for landscape maintenance practices that foster long-term landscape water conservation. Landscape maintenance practices may include, but are not limited to, performing routine irrigation system repair and adjustments, conducting water audits, and prescribing the amount of water applied per landscaped acre.

(m) Include provisions to minimize landscape irrigation overspray and runoff.

65597. Not later than January 31, 2010, each local agency shall notify the department as to whether the local agency is subject to the department's updated model ordinance adopted pursuant to Section 65595, and if not, shall submit to the department a copy of the water efficient landscape ordinance adopted by the local agency, and a copy of the local agency's findings and evidence in the record that its water efficient landscape ordinance is at least as effective in conserving water as the department's updated model ordinance. Not later than January 31, 2011, the department shall, to the extent funds are appropriated, prepare and submit a report to the Legislature summarizing the status of water efficient landscape ordinances adopted by local agencies.

65598. Any model ordinance adopted pursuant to this article shall exempt cemeteries from all provisions of the ordinance except those set forth in subdivisions (h), (k), and (*l*) of Section 65596. In adopting language specific to cemeteries, the department shall recognize the special landscape management needs of cemeteries.

65599. Any actions or proceedings to attach, review, set aside, void, or annul the act, decision, or findings of a local agency on the ground of noncompliance with this article shall be brought pursuant to Section 1085 of the Code of Civil Procedure.

SEC. 4. Section 25401.9 is added to the Public Resources Code, to read:

25401.9. (a) To the extent that funds are available, the commission, in consultation with the Department of Water Resources, shall adopt by regulation, after holding one or more public hearings, performance standards and labeling requirements for landscape irrigation equipment, including, but not limited to, irrigation controllers, moisture sensors, emission devices, and valves, for the purpose of reducing the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

(b) For the purposes of complying with subdivision (a), the commission shall do all of the following:

(1) Adopt performance standards and labeling requirements for landscape irrigation controllers and moisture sensors on or before January 1, 2010.

(2) Consider the Irrigation Association's Smart Water Application Technology Program testing protocols when adopting performance standards for landscape irrigation equipment, including, but not limited to, irrigation controllers, moisture sensors, emission devices, and valves.

(3) Prepare and submit a report to the Legislature, on or before January 1, 2010, that sets forth on a proposed schedule for adopting performance standards and labeling requirements for emission devices and valves.

(c) On and after January 1, 2012, an irrigation controller or moisture sensor for landscape irrigation uses may not be sold or installed in the state unless the controller or sensor meets the performance standards and labeling requirements established pursuant to this section.

SEC. 5. Article 4.5 (commencing with Section 535) is added to Chapter 8 of Division 1 of the Water Code, to read:

Article 4.5. Irrigated Landscape

535. (a) A water purveyor shall require as a condition of new retail water service on and after January 1, 2008, the installation of separate water meters to measure the volume of water used exclusively for landscape purposes.

(b) Subdivision (a) does not apply to either of the following:

(1) Single-family residential connections.

(2) Connections used to supply water for the commercial production of agricultural crops or livestock.

(c) Subdivision (a) applies only to a service connection for which both of the following apply:

(1) The connection serves property with more than 5,000 square feet of irrigated landscape.

(2) The connection is supplied by a water purveyor that serves 15 or more service connections.

(d) For the purposes of this section, "new retail water service" means the installation of a new water meter where water service has not been previously provided, and does not include applications for new water service submitted before January 1, 2007.

SEC. 6. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

O

Appendix F

City Council Meeting Minutes
July 20 & August 3, 2011

SUSANVILLE CITY COUNCIL
SUSANVILLE COMMUNITY DEVELOPMENT AGENCY
SUSANVILLE MUNICIPAL ENERGY CORPORATION
SUSANVILLE PUBLIC FINANCING AUTHORITY
Regular Meeting Minutes
July 20, 2011 – 6:00 p.m.

City Council Chambers 66 North Lassen Street Susanville CA 96130

Meeting was called to order at 6:00 p.m. by Mayor Callegari.

Roll call of Councilmembers present: Douglas Sayers, Cheryl L. McDonald and Mayor Lino P. Callegari. Absent and excused: Joseph Franco and Rod De Boer.

Staff present: Robert Porfiri, City Administrator/Finance Director; Peter M. Talia, City Attorney; and Debra M. Magginetti, CMC/City Clerk.

1 **APPROVAL OF AGENDA**: Motion by Mayor pro tem Sayers, second by Councilmember McDonald to approve the agenda as posted; motion carried. Absent: Franco and De Boer.

2 **PUBLIC COMMENT REGARDING CLOSED SESSION ITEMS** (if any): No public comment.

Mr. Porfiri reviewed the status of open labor negotiations.

3 **CLOSED SESSION**: At 6:02 p.m., the City Council recessed to Closed Session to discuss the following:

A CONFERENCE WITH LABOR NEGOTIATOR (2011/2012) – pursuant to Government Code §54957.6:

Agency Negotiator:	Robert Porfiri
Bargaining Unit:	Administrative/Confidential Unit
	Firefighters Unit
	Management Unit
	Miscellaneous Unit
	Professional/Technical Unit
	Public Works Unit
	Susanville Police Officers Association

B CONFERENCE WITH REAL PROPERTY NEGOTIATOR – pursuant to Government Code §54956.8:

Property:	Portion of APN 116-230-05
	APN 103-294-12
	Portion of APN 101-270-09
	APN 105-143-01
	APN 101-271-08
Agency negotiator:	Robert Porfiri
Negotiating parties:	Unknown
Under negotiation:	Price/Conditions/Terms of payment

C CONFERENCE WITH LEGAL COUNSEL – Existing litigation pursuant to Government Code §54956.9 (a):
City of Susanville and County of Lassen vs. California Department of Corrections and Rehabilitation; California Department of Parole (AKA Division of Adult Parole Operations); and Does 1 through 20 inclusive, Lassen County Superior Court Case No. 51154

D CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Significant exposure to litigation pursuant to Government Code §54956.9 (b): one

4 **RETURN TO OPEN SESSION**: The City Council reconvened in open session at 7:00 p.m.

Staff present: Robert Porfiri, City Administrator/Finance Director; Peter M. Talia, City Attorney; Debra M. Magginetti, CMC/City Clerk; Jeff Atkinson, Police Chief; Ted Friedline, Fire Chief; Jared Hancock, Senior Planner; and Craig Platt, Public Works Director.

Mayor Callegari led those assembled in the pledge of allegiance.

Mr. Porfiri reported that the agenda had been approved as posted.

Mr. Talia announced that no reportable action had been taken in Closed Session.

The Clerk offered the thought for the day.

5 **BUSINESS FROM THE FLOOR**:

Jim Chapman, local resident, stated that the Freemasons will be celebrating the Sesquicentennial event of Lodge 149 on Saturday, July 23, 2011 between 1:00 and 3:00 p.m. on the lawn in front of Roop's Fort. He invited members of the City Council to attend.

Violet Stout, local resident, commented on the events following the recent termination of the former County Administrative Officer, including a lawsuit and a recall petition. She is concerned that these actions will incur costs when funds would be better spent elsewhere in the community.

The Mayor thanked everyone for their comments.

6 **CONSENT CALENDAR**: Mayor Callegari reviewed the items on the Consent Calendar:

- A Waive the oral reading and approve minutes from City Council's June 15, 2011 meeting
- B Approve vendor warrants numbered 81862 through 81868 totaling $4,855.53
- C Receive and file Finance Director's report
- D Receive and file Treasurer's report
- E Receive and file HUSA agendas/minutes

There was no public comment.

Motion by Mayor pro tem Sayers, second by Councilmember McDonald to approve the Consent Calendar; motion carried. Absent: Franco and De Boer.

7 **PUBLIC HEARINGS**:

7A City of Susanville Urban Water Management Plan:

1 **Public Hearing: Solicit and consider comments made about the proposed Urban Water Management Plan**

2 **Action: Consider Resolution No. 11-4774, Approving and adopting Urban Water Management Plan for the City of Susanville**

Mayor Callegari opened the public hearing at 7:10 p.m.

The Mayor then requested that the public hearing be continued to August 3, 2011 at 7:00 p.m., as two Councilmembers are not present and the opportunity for public comment may be diminished because this evening marks the first day of the Lassen County Fair.

Jim Chapman, local resident, asked that staff address the differences between the 2005 and 2010 Urban Water Management Plans when the public hearing is continued.

Motion by Mayor pro tem Sayers, second by Councilmember McDonald to continue the public hearing to August 3, 2011 at 7:00 p.m.; motion carried. Absent: Franco and De Boer.

8 **COUNCIL DISCUSSION/ANNOUNCEMENTS**: None.

9 **NEW BUSINESS**:

9A **Annual League Conference: Consider appointment of voting delegate**: The Clerk reported that the League of California Cities has scheduled its 2011 Annual Conference for September 21-23, 2011 in San Francisco at the Moscone West Convention Center. An important part of the Annual Conference is the Annual Business Meeting, scheduled for 2:30 p.m. on Friday, September 23, 2011. At this meeting, the League membership considers and takes action on resolutions that establish League policy.

None of the Councilmembers present had made plans to attend the Conference. It was the consensus of the sitting Council that no action would be taken on this item if neither of the absent Councilmembers will be attending.

9B **Consider donation of fields and light tokens for Lassen High School baseball fund raiser**: The Clerk reported that the Lassen High School Baseball Boosters have submitted a written request for a waiver of park use fees and donation of light tokens for its annual fund raiser. The donation of ten light tokens and two days of park use fees are estimated to be $135. All proceeds from the tournament are dedicated to support Lassen High School Baseball.

There was no public comment.

Motion by Councilmember McDonald, second by Mayor pro tem Sayers to approve the parks use fee waiver and to donate ten light tokens for the fund raiser; motion carried. Absent: Franco and De Boer.

9C **Consider Resolution No 11-4780, Authorizing increase of Fire Department Mitigation funds for completion of parking lot resurfacing project**: Chief Friedline reported that the Fire Department began parking lot resurfacing the back lot in October, 2010. Volunteers and paid staff removed the weathered surface and discovered that there was no road base under the asphalt. This required removal of 12 inches of existing "airport sand" and the installation of 12 inches of road base and fabric.

Initially, staff had estimated the resurfacing cost to be $25,000, but with the additional under-surface preparation, the cost has increased to $35,000. Remaining work will be completed by existing City staff. There is sufficient funding in the Fire mitigation account to transfer to the project budget.

There was no public comment.

Motion by Mayor pro tem Sayers, second by Councilmember McDonald to approve **Resolution No. 11-4780**; motion carried. Absent: Franco and De Boer.

10 **SUSANVILLE COMMUNITY DEVELOPMENT AGENCY**: No business.

11 **SUSANVILLE MUNICIPAL ENERGY CORPORATION**: No business.

12 **CONTINUING BUSINESS**: No business.

13 CITY ADMINISTRATOR'S REPORTS:

13A **Monthly Natural Gas update** – Mr. Porfiri reviewed the statistics through June 30, 2011. He stated that the utility is doing well, as the figures are better than had been projected. He added that the radio advertisements have been very effective in bringing in new customers.

Mayor pro tem Sayers commented that it is very important to bring new customers on line.

Mr. Platt reported that most of the larger projects have been installed and are on line. Through July 15, 2011, 23 new installations had been completed and staff is currently holding 22 contracts for installation.

Mayor Callegari asked how the CEC water heater project was coming along. Mr. Platt responded that this federal program has been a time-consuming process. The first five water heaters will be installed by local contractors during the week of July 25, 2011.

13B **Streets/Golf update**: Mr. Porfiri reviewed the Streets, Snow and Golf funds, encouraging the City Council to look at the numbers in the right-hand column.

13C **Johnstonville Water System Update**: Mr. Platt displayed an aerial photograph of the water tank in the general area of the Susanville Municipal Airport as he explained that the City had been approached by the former County Administrative Officer and a Lassen County Supervisor with respect to accepting the CalTrans water tank and system.

Jim Chapman, District 2 Supervisor, stated that he is glad that the City Council is discussing the water tank and system, which was constructed with grant funds in the mid-1990s at a time in which additional development was thought to be coming. As it turns out, CalTrans is the system's only customer and the County no longer wishes to subsidize the system. Board direction in the spring of 2010 was to "dump it." Initially, it appeared that there was some interest by the Susan River Fire Protection District but this has not played out. He explained that if the system is sold to a private operator, that entity would be required to pay back the grant funds. However, if it is conveyed to another public agency, repayment is not required. He further believes that if the tank/system is transferred to another agency, it should be done with the proviso that fire districts would have free access to the water. He believes that the actual costs of the County running the system are misrepresented, due to A-87 overhead costs, as the only hard costs would be approximately $6,000 in pumping costs. He believes that acquisition of the system could be a great revenue-generator for the City.

Mr. Platt explained that he would be presenting a great deal of information on the proposal at the City's regular meeting scheduled for August 3, 2011.

13D **Work-in-progress update**: Mr. Porfiri reviewed the work-in-progress schedule.

Mr. Porfiri showed a slide of damage to a swing set at Memorial Park. A large branch from a nearby tree broke off and caused a dip in the framework of the structure. Staff is conducting a survey of all the trees in both Memorial Park and Riverside Park to minimize the risk of damage or injury to those who use the parks. Trees that are in bad shape will be trimmed.

14 COUNCIL ITEMS:

14A **AB1234 travel reports**: None.

15 ADJOURNMENT: Motion by Mayor pro tem Sayers, second by Councilmember McDonald to adjourn the meeting; motion carried. Absent: Franco and De Boer.

Meeting adjourned at 7:55 p.m.

_____
Lino P. Callegari, Mayor

Respectfully submitted by

_____
Debra M. Magginetti, CMC/City Clerk

Approved on August 17, 2011.

SUSANVILLE CITY COUNCIL
SUSANVILLE COMMUNITY DEVELOPMENT AGENCY
SUSANVILLE MUNICIPAL ENERGY CORPORATION
SUSANVILLE PUBLIC FINANCING AUTHORITY
Regular Meeting Minutes
August 3, 2011 – 6:00 p.m.

City Council Chambers 66 North Lassen Street Susanville CA 96130

Meeting was called to order at 6:00 p.m. by Mayor Callegari.

Roll call of Councilmembers present: Joseph Franco, Douglas Sayers, Cheryl L. McDonald and Mayor Lino P. Callegari. Absent and excused: Rod De Boer.

Staff present: Robert Porfiri, City Administrator/Finance Director; Peter M. Talia, City Attorney; and Debra M. Magginetti, CMC/City Clerk.

1 **APPROVAL OF AGENDA**: Mr. Porfiri requested the addition of two urgency items:

3D CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Initiation of litigation pursuant to Government Code Section 54956.9: ~~one~~ *two*

6D Approve **Resolution No. 11-4783**, Authorizing the continuing resolution authority to meet payroll for Administrative/Confidential, Fire Fighters, Management, Miscellaneous, Professional/Technical, Public Works and Susanville Police Officers Association employee units in the absence of negotiated MOUs through September 30, 2011 or at adoption of unit MOUs, whichever comes first

Motion by Councilmember Franco, second by Mayor pro tem Sayers to approve the agenda as amended, with the finding that there is a need to take immediate action and the need for that action came to the attention of the local agency subsequent to the agenda being posted, pursuant to Government Code §54954.7; motion carried. Absent: De Boer.

2 **PUBLIC COMMENT REGARDING CLOSED SESSION ITEMS** (if any): No public comment.

The City Administrator provided an oral update on the status of open labor negotiations.

3 **CLOSED SESSION**: At 6:02 p.m., the City Council recessed to Closed Session to discuss the following:

A CONFERENCE WITH LABOR NEGOTIATOR (2011/2012) – pursuant to Government Code §54957.6:
Agency Negotiator: Robert Porfiri
Bargaining Unit: Administrative/Confidential Unit
Firefighters Unit
Management Unit
Miscellaneous Unit
Professional/Technical Unit
Public Works Unit
Susanville Police Officers Association

B CONFERENCE WITH LABOR NEGOTIATOR (2010/2011) – pursuant to Government Code §54957.6:
Agency Negotiator: Robert Porfiri

Bargaining Unit: Susanville Police Officers Association

C CONFERENCE WITH LEGAL COUNSEL – Existing litigation pursuant to Government Code §54956.9 (a):
City of Susanville and County of Lassen vs. California Department of Corrections and Rehabilitation; California Department of Parole (AKA Division of Adult Parole Operations); and Does 1 through 20 inclusive, Lassen County Superior Court Case No. 51154

D CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Initiation of litigation pursuant to Government Code Section 54956.9 (c): ~~one~~ *two*

4 **RETURN TO OPEN SESSION**: The City Council recessed from Closed Session at 6:50 p.m. and reconvened in open session at 7:00 p.m.

Staff present: Robert Porfiri, City Administrator/Finance Director; Peter M. Talia, City Attorney; Debra M. Magginetti, CMC/City Clerk; Jeff Atkinson, Police Chief; Ted Friedline, Fire Chief; Jared Hancock, Senior Planner; Gwenna MacDonald, Administrative Assistant; Craig Platt, Public Works Director; and Deborah Savage, Assistant to City Administrator/Finance Director.

Mayor Callegari led those assembled in the pledge of allegiance.

Mr. Porfiri reported that the agenda had been amended pursuant to Government Code §54954.7 and approved as follows:

3D CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Initiation of litigation pursuant to Government Code Section 54956.9: ~~one~~ *two*

6D Approve **Resolution No. 11-4783**, Authorizing the continuing resolution authority to meet payroll for Administrative/Confidential, Fire Fighters, Management, Miscellaneous, Professional/Technical, Public Works and Susanville Police Officers Association employee units in the absence of negotiated MOUs through September 30, 2011 or at adoption of unit MOUs, whichever comes first

Mr. Porfiri announced that no reportable action was taken in Closed Session.

Mr. Talia offered the thought for the day.

The Mayor referenced a Suffragist Proclamation and directed the Clerk to make it available to the Lassen County Historical Association at the proper time in October.

5 **BUSINESS FROM THE FLOOR**:

Nick McBride and **Willis Dow**, local residents, addressed the Council with respect to their plans for a wake boarding event to be held at Emerson Lake at the municipal golf course. They envision the event to be held at the old clubhouse, feature a band and offer alcoholic beverages for sale. They were directed to contact the City Attorney at their earliest convenience to discuss permitting the event.

Mr. Porfiri advised that repairs to the old clubhouse were completed earlier in the day.

6 **CONSENT CALENDAR**: Mayor Callegari reviewed the items on the Consent Calendar:

A Waive the oral reading and approve minutes from City Council's July 6, 2011 meeting

B Approve vendor warrants numbered 81869 through 81929 totaling $504,259.90, including $201,503.78 in payroll warrants

C Approve Accounts Receivable write-off in the amount of $10,632.16

D Approve **Resolution No. 11-4783**, Authorizing the continuing resolution authority to meet payroll for Administrative/Confidential, Fire Fighters, Management, Miscellaneous, Professional/Technical, Public Works and Susanville Police Officers Association employee units in the absence of negotiated MOUs through September 30, 2011 or at adoption of unit MOUs, whichever comes first

There was no public comment.

Motion by Councilmember Franco, second by Mayor pro tem Sayers to approve the Consent Calendar; motion carried. Absent: De Boer.

7 **PUBLIC HEARINGS**:

7A City of Susanville Urban Water Management Plan (public hearing continued from July 20, 2011):

1 **Public Hearing: Solicit and consider comments made about the proposed Urban Water Management Plan**

2 **Action: Consider Resolution No. 11-4774, Approving and adopting Urban Water Management Plan for the City of Susanville**

Mayor Callegari opened the continued public hearing at 7:11 p.m. and requested the staff report.

Mr. Platt reported that at its July 20, 2011 meeting, the City Council determined that it would be in the best interests of the community to continue the public hearing and consideration of this item to this evening's meeting. July 20, 2011 was the first day of the Lassen County Fair, reducing attendance at the City's public hearing.

Mr. Platt explained that the Urban Water Management Plan Act (California Water Code §10610-10656) requires that the City update and adopt an Urban Water Management Plan (UWMP) at least every five years on or before December 31 in years ending in "5" and "0." The 2010 Plan was delayed by changes made by the state Legislature until March, 2011 to allow the amendments to be adopted and enacted into law.

Mr. Platt reported that the main changes are to the *Demand Management Measures* concerning the UWMP Act by addressing the potential programs that the City could implement while complying with the Best Management Practices targets in the California Urban Water conservation Council MOUs. The City is a member of the Lahontan Basin Integrated Regional Management Program JPA as an alternative to joining the state-based JPA, which reflects more accurately the Central Valley concerns rather than those of this community. One of the things considered to be important by the state is a 25 percent reduction in usage over the next several years.

He explained that the updated UWMP draft included in the agenda packet will be sent to the Department of Water Resources once it has been adopted by the City Council.

Councilmember Franco commented that the City's water system relies in large part on an antiquated delivery system. He asked if the springs discharge could be metered and compared to total usage by the City's customers. Repairs or upgrades to the system could then be counted towards the percentage of savings. He is hoping that grant dollars may be available to assist the City in meeting the projections. Mr. Platt advised that he's looking into grant funding opportunities. He also explained that over the past eight years, improvements to the system have been made, including pressure control valves and integration of the City's water zones, all of which reduce waste.

Mayor pro tem Sayers asked about the membership of the Lahontan Basin Integrated Regional Management Program; Mr. Platt responded that members include Lassen County, Susanville Sewer District, the City and

several local irrigation districts. Mayor pro tem Sayers commented that perhaps now is the time to look at a Devil's Corral dam.

Jim Chapman, District 2 Supervisor, commented that the JPA was formed primarily to keep Nevada water concerns from "grabbing" the community's water. He agrees with Mr. Platt that the JPA is a good tool for managing local water interests.

Mayor Callegari asked if there were any comments on the proposed Plan.

Mr. Chapman stated that he is supportive of the draft document.

There being no further comments, Mayor Callegari closed the public hearing at 7:30 p.m.

Councilmember Franco remarked that Susanville is "blessed" with the water available in the Susan River. Not only is it of excellent quality, but it enhances habitat and provides a beautiful scenic corridor through town.

Motion by Councilmember Franco, second by Mayor pro tem Sayers to approve **Resolution No. 11-4774**; motion carried. Absent: De Boer.

8 **COUNCIL DISCUSSION/ANNOUNCEMENTS**: There were no comments.

9 **NEW BUSINESS**:

9A **Discussion/decision re: Lassen County Johnstonville water system (CSA #2) feasibility study**: Mr. Platt reported that the County's former CAO, County Counsel and one District Supervisor have approached City staff about the CSA #2 Johnstonville water system to seek the City's interest in taking the operation of the water system over from the County. The water system is located next to the City's Airport off Johnstonville Road and serves the Caltrans yard on the south side of Highway 395. Caltrans is the water system's sole customer. The system was installed in 1995 and has run in the red since its construction.

Information on the system can be found In the LAFCo MSR document included in the agenda packet. Staff is requesting direction from the City Council to explore options in acquiring the County's system and to extend the water system 1,000 feet to the Airport.

Initially, staff considered the project in conjunction with being appointed receiver in the Susan River Park water system, but staff has since met with the son of the Susan River Park system owner and state representatives to discuss a possible receivership of the system. At this time, there is interest in the City helping bring the system into compliance but not taking the system over, as there is family interest in continuing to operate the system. Therefore, there is no longer the advantage of tying the two systems together as part of the City's water system.

A rough estimated cost to extend the system 1,000 feet to the Airport would be approximately $100,000. Usually, these types of costs are undertaken by a developer as a condition of development, but in the case of the Airport, the cost would be paid by the City. In addition, the County's booster pump station probably needs to be updated and the installation of a back-up generator would also be necessary to maintain pressure during a power outage. The estimated cost for this is in the neighborhood of $75,000. The projected current annual revenue from the one-customer system is between $28,000 and $30,000.

Mr. Platt also added that the minutes from LAFCo's July 11, 2011 meeting had been added to the staff report after the agenda packet had been distributed.

It has been stated that the City's costs for operation would be less than currently paid by the County, but Mr. Platt believes this to be untrue, particularly because there are still overhead costs to consider as well as the

depreciated value of the water system. He recommended that the Council provide direction for him and his staff to proceed with an in-depth cost analysis of the feasibility of acquiring and operating the County's Johnstonville Water system. He estimates the value of staff time to prepare the study to be in the neighborhood of between $3,000 and $5,000.

Mayor Callegari asked if there would be FAA grant monies available to bring the line to the Airport. Mr. Platt responded that he has sent an inquiry to the FAA, and added that water extension projects used to be among the top five projects selected for funding, but that this is no longer the case. He noted that he has talked with Johnstonville School District representatives and the mobile home park operators about tying them into the system, as the rules for running a small water system are extensive and can be prohibitive.

Councilmember Franco agreed with Mr. Platt that it would be difficult to make an informed decision without the proper background. He is skeptical because the County's profit-and-loss statement shows expenditures outpacing revenue, but understands that the City is the logical entity to assume operation of the system. The Council must make a decision based on the cost to bring the system up to par compared to the amount of time required to make back its investment.

Jim Chapman, District 2 Supervisor, commented that in its current configuration, the system does not deliver a service to the community. The promise of development made when the system was constructed has not been achieved. He emphasized that transfer to the City is only one of several options being entertained by the County with respect to the system. He believes that new customers could be brought on and the system would begin to pay for itself. He reiterated that the local fire agencies should have access to water without charge if the system were transferred to the City.

Councilmember McDonald referred to the July 11, 2011 LAFCo minutes, which indicated that the City cost to operate would be less than the County's because A-87 costs would not incorporated into the expense column. She asked Supervisor Chapman for clarification. Supervisor Chapman summarized A-87 costs as a method of feeding the bureaucracy through internal accounting procedures, similar to "robbing Peter to pay Paul." He allowed that the City may have a similar procedure in place.

Mayor pro tem Sayers spoke in support of Mr. Platt's recommendation.

It was the consensus of the City Council to authorize Mr. Platt to proceed with the feasibility study at a cost not to exceed $5,000.

9B Consider appointment of two Planning Commissioners: Mr. Hancock reported that the Planning Commission performs many important functions on behalf of the City Council and is often responsible for giving recommendations to the City Council relative to the development, design and growth of the City. He reported that the terms of Commissioners Gene Stark and Alan Dowdy expired in June, 2011. At its meeting of April 12, 2011, the City Council considered letters of interest from Commissioners Beth Bennett and Dan Foster to renew their terms on the Commissions. At that time, the City also received letters of interest from Vicki Lozano and Jeff Garnier. The candidates were interviewed and Commissioners Bennett and Foster were each re-appointed to another four-year term.

Both Commissioner Stark and Dowdy have indicated their interest in continuing to serve for another four-year term. At this time, staff is requesting direction from the Council to either renew the terms of the existing Commissioners by ratification of the Mayor's appointment, or to authorize staff to advertise the vacancies to provide an opportunity for all members of the community to serve on the Planning Commission. Mr. Hancock indicated that he didn't find a requirement to advertise for the open seats in the *Susanville Municipal Code*.

Vicki Lozano, local resident, commented that she had submitted a letter of interest in response to the earlier April vacancies. She is opposed to filling the vacancies without advertising them first, as it isn't fair to those members of the community who are interested in serving. She doesn't believe that convenience for the staff should outweigh the public's opportunity to apply to serve on the City's Planning Commission.

Mayor pro tem Sayers stated that it's the Mayor's call.

Mayor Callegari commented that serving on the Planning Commission is a thankless job, but he hasn't heard any complaints about those currently serving on the Commission. If they wish to continue to serve, he would prefer to keep Commissioners Stark and Dowdy.

Councilmember Franco agreed that it's important to retain experienced Commissioners in order for continuity. He is supportive of a suggestion made at the April 12, 2011 meeting with respect to amending the *Susanville Municipal Code* to include service by alternates. This would provide on-the-job training and expand the knowledge base within the community.

Mr. Talia stated that there would be a recommendation from staff on the question of alternates at the next meeting.

Motion by Mayor pro tem Sayers, second by Councilmember Franco to ratify the Mayor's re-appointment of Commissioners Dowdy and Stark; motion carried. Absent: De Boer.

9C Consider Resolution No. 11-4782, Terminating Airport hangar space lease agreement with Floyd Hansen (lot #6): Mr. Platt reported that Floyd Hansen has been renting a space for his aircraft in the City-owned hangar since July 6, 2010. Mr. Hansen has advised staff that he will be terminating his space lease with the City effective July 31, 2011.

There was no public comment.

Motion by Mayor pro tem Sayers, second by Councilmember McDonald to approve **Resolution No. 11-4782**; motion carried. Absent: De Boer.

9D Consider Resolution No. 11-4781, Supporting HUSA events (Fall Crafter's Festival (September 17, 2011) and Safe and Sane Halloween (October 31, 2011): Mr. Platt reported that HUSA has requested City Council support for the Fall Crafter's Festival (Saturday, September 17, 2011 between 8:00 a.m. and 6:00 p.m.) and the Safe and Sane Halloween event (Monday, October 31, 2011 between 3:00 p.m. and 6:00 p.m.). The cost of staff time associated with both events is estimated to be approximately $1,750.

There was no public comment.

Motion by Mayor pro tem Sayers, second by Councilmember McDonald to approve **Resolution No. 11-4761**; motion carried. Absent: De Boer.

10 **SUSANVILLE COMMUNITY DEVELOPMENT AGENCY**: No business.

11 **SUSANVILLE MUNICIPAL ENERGY CORPORATION**: No business.

12 **CONTINUING BUSINESS**: No business.

13 **CITY ADMINISTRATOR'S REPORTS**:

13A **Work-in-progress update**: Mr. Porfiri reviewed the work-in-progress calendar.

14 **COUNCIL ITEMS**:

14A **AB1234 travel reports**: None.

Councilmember McDonald commented on the weeds growing in the cracks at the parking lot immediately adjacent to the Uptown Theaters. She would like to have the weeds knocked down.

Mayor pro tem Sayers stated that he is pleased to note that the streets have been striped.

Mayor Callegari noted that he's seen water running along the gutter near the High Country Inn. Mr. Platt indicated that he has talked to the Parks maintenance supervisor about it in order to resolve the problem.

Mayor Callegari advised that there are two trailers parked on McDow Street that block line-of-sight and pose a traffic danger. Chief Atkinson reported that he has made contact with the owner and the problem will be remedied shortly.

15 **ADJOURNMENT**: Motion by Councilmember Franco, second by Mayor pro tem Sayers to adjourn the meeting; motion carried. Absent: De Boer.

Meeting adjourned at 8:10 p.m.

_____
Lino P. Callegari, Mayor

Respectfully submitted by

_____
Debra M. Magginetti, CMC/City Clerk

Approved on September 7, 2011.

Appendix G

Public Hearing Advertisement & Minutes

Note: Minutes are in Appendix F (Item 7 page 427-428, Item 7 page 433-434)

From: Debra Magginetti
Sent: Thursday, June 30, 2011 7:52 AM
To: 'lzinko@lassennews.com'
Subject: Legal Notice: UWMP public hearing

NOTICE OF PUBLIC HEARING

The City Council of the City of Susanville will hold a public hearing to solicit comments with respect to the adoption of the City's Urban Water Management Plan. If you have any questions, please call 530/252-1041.

The public hearing will be held on Wednesday, July 20, 2011at 7:00 p.m. (or as soon thereafter as the agenda permits) in the City Council Chambers at 66 North Lassen Street, Susanville, California. The public is invited to attend and provide oral and/or written comments. Written comments must be received at 66 No. Lassen St., Susanville, CA 96130-3904 at, or prior to, the meeting time and date.

For the City Council of the City of Susanville by:

_____
Debra M. Magginetti, City Clerk

Publish two times: 07/11/2011
07/18/2011

PO# 7482
1000-411-40-4540

Thanks!

Debra Magginetti
CMC/City Clerk
ARM, CSP
City of Susanville
66 North Lassen Street
Susanville CA 96130-3904
530/252-5103 Telephone
530/252-1020 Fax
dmagginetti@cityofsusanville.org

Appendix H

Water Shortage Contingency Resolution

By adoption of the following Resolution No. 11-4774 (see next two pages) the City of Susanville Adopts the City's Urban Water Management Plan and thus by adoption of this plan the City's Water Shortage Contingency Resolution shall consist of all elements as outlined and described in Sections 3 "Water Shortage Contingency Plan" and the implantation of those elements as outlined in Section 5 "Review & Implantation". These two sections together shall be considered the Water Shortage Contingency Resolution of the City of Susanville.

RESOLUTION NO. 11-4774
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUSANVILLE ADOPTING CITY'S URBAN WATER MANAGEMENT PLAN AND AUTHORIZING SUBMITTAL TO OFFICE OF WATER CONSERVATION IN THE CALIFORNIA DEPARTMENT OF WATER RESOURCES AS REQUIRED BY LAW

WHEREAS, the Urban Water Management Plan Act (California Water Code Sections 10810-1065)6 requires the City to update and adopt an Urban Water Management Plan (UWMP) at least every five years on or before December 31 in years ending in "5" or "0"; and

WHEREAS, the updated City of Susanville Urban Water Management Plan for the period 2010 through 2015 is being presented to the City Council for review and adoption at a duly noticed and published public hearing; and

WHEREAS, upon adoption of the UWMP it will be filed with the Office of Water Conservation in the Department of Water Resources, as required by law;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Susanville that the updated City of Susanville Urban Water Management Plan for the period 2010 through 2015 has been reviewed and adopted by the City Council, subsequent to a public hearing as required by law.

BE IT FURTHER RESOLVED that the City Council authorizes staff to file the Urban Water Management Plan with the Office of Water Conservation in the Department of Water Resources as required by law.

APPROVED: _____
Lino P. Callegari, Mayor

ATTEST: _____
Debra M. Magginetti, CMC/City Clerk

The foregoing Resolution No. 11-4774 was adopted at a regular meeting of the City Council of the city of Susanville held on the ~~20th~~ 3rd day of ~~July~~ August, 2011 by the following vote:

AYES:	Franco, Sayers, McDonald and Callegari
NOES:	None
ABSENT:	De Boer
ABSTAINING:	None

_____
Debra M. Magginetti, CMC/City Clerk

APPROVED AS TO FORM: _____
Peter M. Talia, City Attorney

I, Debra M. Magginetti, the duly appointed, qualified and acting Clerk of the City of Susanville, do hereby certify that the within and foregoing is a full, true and correct copy of **Resolution No. 11-4774,** duly and regularly approved by the City Council of the City of Susanville at a regular meeting thereof held on the 3rd day of August, 2011.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the City of Susanville all on the 15th day of September, 2011.

Debra M. Magginetti

Debra M. Magginetti, CMC/City Clerk

Appendix I

Catastrophic Water Supply Interruption Plan

The City has several options to provide water during Catastrophic Water Supply interruptions. The City also has extensive water system valves that allow system isolation. During a catastrophic event major leaks would be immediately isolated to conserve existing water storage supplies. Residential drink and culinary water needs would be first priority. Natural flowing springs would be the first priority water source to supply the needs. Depending on the extent of damage sustained by the water system, water may need to be distributed via bottles from the spring head works. Spring water would be diverted to a more convenient distribution location if distribution system damage could be isolated. Second priority water sources would include the City wells and associated emergency generators.